ORDER NO. VRD9808033C2

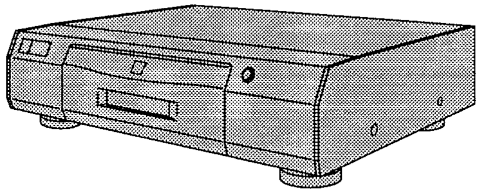
Service Manual

General Description
Adjustment Procedures
Block / Schematic Diagrams
Exploded Views / Parts List

Panasonic DV Mini DV PAL

Digital Video Cassette Recorder

NV-DV10000 B EC



SPECIFICATIONS

ITEM	SPECIFICATION	
POWER	SOURCE: 220−240 V AC 50/60 Hz	
	CONSUMPTION: 36 watts	
RECORDING SYSTEM	VIDEO : 2 rotary heads, Digital Component AUDIO : PCM Digital Recording: 16 bit (48 kHz/2ch), 12 bit (32 kHz/4ch)	
	PAL	
TV TUNER SYSTEM	NV-DV10000B	UHF : CH21−CH68 (PAL I) 75Ω terminated
	NV-DV10000EC	VHF : CHE2−CHE12 UHF : CH21−CH69 75Ω terminated CATV : CHS1−CHS3 CHM1−CHU10 CHS21−CHS41 75Ω terminated
RF OUT SYSTEM	NV-DV10000EC	UHF: CH21-CH69 71±3dBμ, 75Ω terminated
	NV-DV10000B	UHF: CH21-CH68 71±3dBμ, 75Ω terminated
VIDEO	HEADS: 4 rotary heads	
	INPUT: EURO AV (AV1, AV2) Connectors (21 pin) 1.0 Vp-p, 75Ω unbalanced S-VIDEO IN (AV3: FRONT/REAR) Connector 1.0 Vp-p, 75Ω unbalanced VIDEO IN (AV3: FRONT/REAR) Connector (Phono type) 1.0 Vp-p, 75Ω unbalanced DV Terminals (compliant with IEE1394, 4 pin)	
	OUTPUT: EURO AV (AV1, AV2) Connectors (21 pin) 1.0 Vp-p, 75Ω unbalanced S-VIDEO OUT Connector 1.0 Vp-p, 75Ω unbalanced VIDEO OUT Connector (Phono type) 1.0 Vp-p, 75Ω unbalanced DV Terminals (compliant with IEE1394, 4 pin)	
AUDIO	16 bit (48 kHz/2ch): 1track, 2 channels (Hi-Fi sound- stereo) 12 bit (32 kHz/4ch): 2track, 4 channels (Hi-Fi sound-stereo)	

ITEM	SPECIFICATION
AUDIO	INPUT: EURO AV (AV1, AV2) Connectors (21 pin) More than −6 dBV (500 mV), More than 10 kΩ AUDIO IN (AV3: FRONT/REAR) Connector (Phono type) More than −6 dBV (500 mV), More than 10 kΩ MICROPHONE JACK −70 dBV DV Terminals (compliant with IEE1394, 4 pin)
AUDIO	OUTPUT: EURO AV (AV1, AV2) Connectors (21 pin) −6 dBV (500 mV), Less than 1 kΩ AUDIO OUT Connector (Phono type) −6 dBV (500 mV), Less than 1 kΩ HEADPHONE JACK −30 dBV, 8Ω DV Terminals (compliant with IEE1394, 4 pin)
TAPE FORMAT	DV, Mini DV Cassette tape (Tape width 6.35 mm)
TAPE SPEED	SP: 18.831 mm/s LP: 12.568 mm/s Record/Playback Time: 270 min. with DV270 SP: 60 min. with DVM60 LP: 90 min. with DVM60 FF/REW Time: approx. 70 sec. with DV270 approx. 50 sec. with DVM60
OPERATING TEMPERATURE	5°C−40°C
OPERATING HUMIDITY	35%−80%
DIMENSIONS	445 (W)×123 (H)×373.5 (D) mm
WEIGHT	7.0 kg
STANDARD ACCESSORIES	1 pc. RF Coaxial Cable 1 pc. Remote Controller 2 pcs. "R6" size batteries 1 pc. AC Mains Lead 1 pc. DV Cable 1 pc. Edit Cable 1 pc. S-Video Cable 1 pc. 21 pin Scart Cable 1 pc. AV Cable 1 pc. Editing Controller Cable 1 pc. Video Head Cleaning Tape

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

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⚠ **WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model.

Section 1 presents you with technical know how for actual servicing and general information of features and controls, enabling you to become familiar with each function.

Section 2 presents to your mechanical and electrical adjustment information as well disassembly and replacement procedures.

Section 3 contains block diagrams which provides you with information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function e.t.c. ...

Section 4 contains exploded views and parts list.

Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

Note 1: The Electric adjustment using PC is supported only by TATSUJIN software.

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Caution for AC Mains Lead (NV-DV10000B)

IMPORTANT

Your attention is drawn to the fact that the recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

WARNING

TO REDUCE THE RISK OF FIRE OF SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

As this equipment gets hot during use, operate it in well ventilated place; do not install this equipment in a confied space such as a book case or similar unit.

FOR YOUR SAFETY

■DO NOT REMOVE OUTER COVER.

To prevent electric shock, do not remove cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

For your safety please read the following text carefully

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5 amp fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amps and that it is approved by ASTA or BSI to BS 1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local Panasonic Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstance should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol ⏚

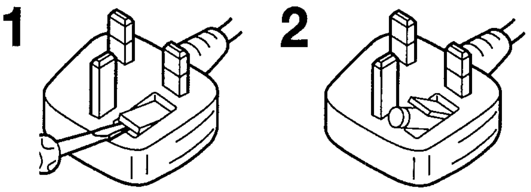
How to replace the Fuse

- There are two types of the AC Mains Lead assembly: **A** and **B** as shown below.

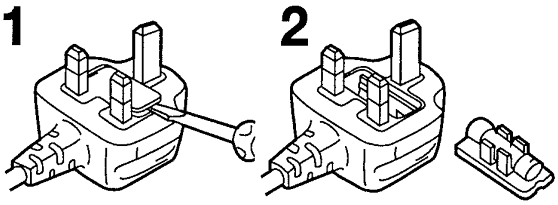
1 Open the fuse compartment with a screwdriver.

2 Replace the fuse and fuse cover.

TYPE A



TYPE B



This VCR has an On Screen Display (OSD) function which allows for timer recording and various other settings. The main operation buttons used in the function are listed below. These buttons are on the remote controller.

MENU: To make the On Screen Display Main menu appear on the TV screen.
To return to the previous screen.
EXIT: To exit the menu completely.
OK: To confirm the selection, or to store.
▲▼◀▶ : To make selections from the On Screen Display.
These buttons can also be used for the playback, stop, rewind and fast forward mode.

SECTION 1
GENERAL DESCRIPTIONS

1. SERVICE INFORMATION

1-1-1. Channel Memory IC Initialization

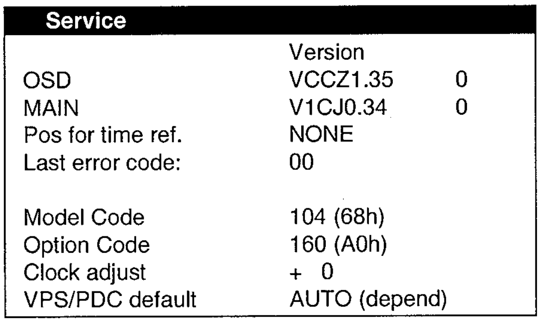
Memory IC30012 has to be initialized due to the setting value changes when replacing it.

Note:

- a) **When replacing the memory IC30012, the OSD microprocessor IC30013 should be replaced together.**
- b) It has to be performed before tuning.
- c) Meaning of "MEMORY IC INITIALIZATION" is to make dependency in different models and to distinguish between different features.
- d) It does not need to perform when replacing the System Control IC6001.

CHANNEL MEMORY IC INITIALIZATION

PROCEDURES	FIP Display	Monitor Screen
Turn the Shuttle Ring to FF then press the EJECT button for 3 seconds.	0 00 00	None
Turn the Shuttle Ring to FF then press the EJECT button more twice.	2 00 00	None
Press the EJECT key for 3 seconds.	2 00 00	None
Press the CH UP key twice.	2 02 00	None
Press the POWER key.	2 02:00 (Colon starts flashing)	Service Screen (See Fig. S1)
Press the REC key on the Remote Controller Unit.	2 02:00	Service Screen (See Fig. S1)
Set the Model Code and Option Code by pressing 10-key or ▶ ◀ ▲▼ keys on the Remote Controller Unit. (See Fig. S2)	2 02:00	Service Screen (See Fig. S1)
To release Service Mode, press POWER key and then turn the Shuttle Ring to FF then press the EJECT button 6 times until the normal indication on the FIP.	10:00	None



Service

	Version	
OSD	VCCZ1.35	0
MAIN	V1CJ0.34	0
Pos for time ref.	NONE	
Last error code:	00	
Model Code	104 (68h)	
Option Code	160 (A0h)	
Clock adjust	+ 0	
VPS/PDC default	AUTO (depend)	

Fig. S1 Service Screen

Caution:
Since the "Clock adjust" and "VPS/PDC default" are future expansion, do not change the initial setting.
If changing the "Clock adjust" accidentally, set the code "+0" by pressing ▲▼ keys on the Remote Controller Unit.
If changing the "VPS/PDC default" accidentally, set the code mentioned "(default)" by pressing ▲▼ keys on the Remote Controller Unit.

Model	Model Code	Option Code
NV-DV10000 EC	164	136
NV-DV10000 B	168	160

Fig. S2 Model Code & Option Code

2. Service Position

2-1. Extension Cables

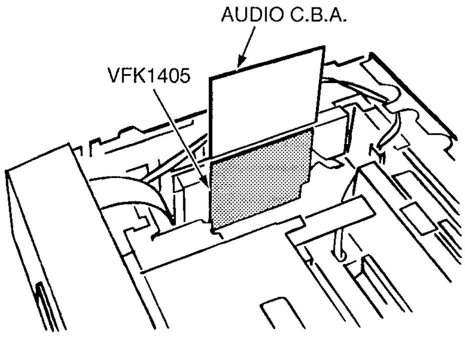
Use the following Extension Cables when checking individual circuit boards.

No.	Part No.	Part Name	Connection	Q'ty	Remarks
1	VFK1405	Audio Connection C.B.A.	Main C.B.A. - Audio C.B.A.	1	
2	VFK1406	Digital Connection C.B.A.	Main C.B.A AV Digital C.B.A.	1	
3	VFK1407P	Y/C Connection C.B.A.	Main C.B.A. Analog Y/C C.B.A.	1	
4	VFK1408	Motor Connection C.B.A.	Main C.B.A. - Motor Drive C.B.A.	1	
5	VFK0849	20P Flat Cable	Digital FP3201 - Head Amp FP5002	1	
6	VFK1445	26P Flat Cable	Main P6703 - Mech. P6504	1	
7	VFK1446	32P Flat Cable	Main P6701 - Mech. P6505	1	
8	VFK1436	14P Extension Cable	Motor Power P2502 - Mech. P2705	2	
9	VFK1448	12P Extension Cable	Main P6707 - Power P1102	1	

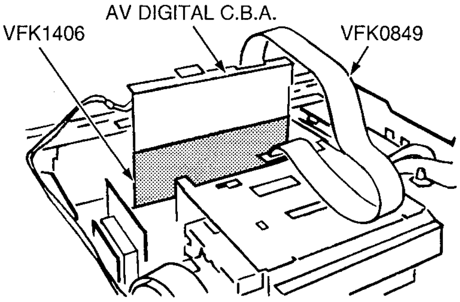
Fig. 2-1 Extension Cable

2-2. Service Position

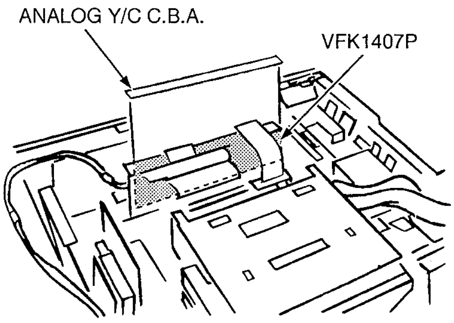
a. Service Position for AV Digital, Analog Y/C, Audio or Motor Power C.B.A.



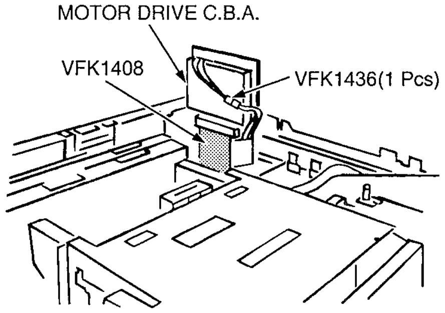
(a) AUDIO C.B.A.



(b) AV DIGITAL C.B.A.



(c) ANALOG Y/C C.B.A.



(d) MOTOR DRIVE C.B.A.

Fig. 2-2 Service Position for AV Digital, Analog Y/C, Audio and Motor Drive C.B.A.

b. Service Position for Mechanism Drive C.B.A.

When checking the Mechanism Drive C.B.A., remove the Mechanism unit with Mechanism Drive C.B.A. from the frame. Then, connect the extension cables as shown in Fig. 2-3 and turn over the Mechanism unit.

c. Service Position for Main C.B.A.

When checking the Main C.B.A., take out the Mechanism unit with Mechanism Drive C.B.A. and Main C.B.A. from the frame. Then, connect extension cables as shown in Fig. 2-4 and turn over the Main C.B.A..

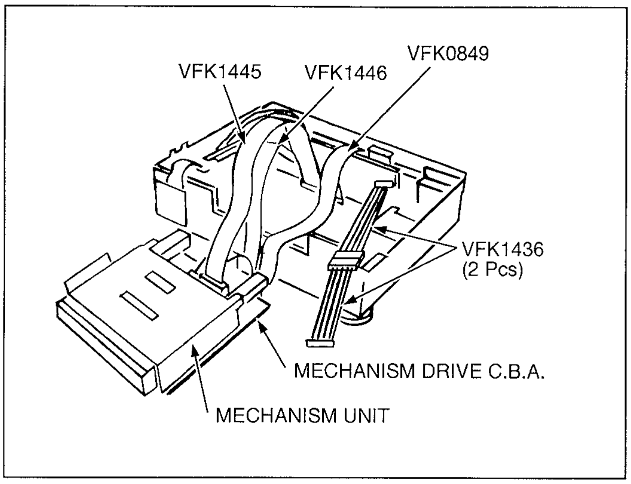

VFK0849
VFK1445
VFK1446
VFK1436
(2 Pcs)
MECHANISM DRIVE C.B.A.
MECHANISM UNIT

Fig. 2-3 Service Position for Mechanism Drive C.B.A.

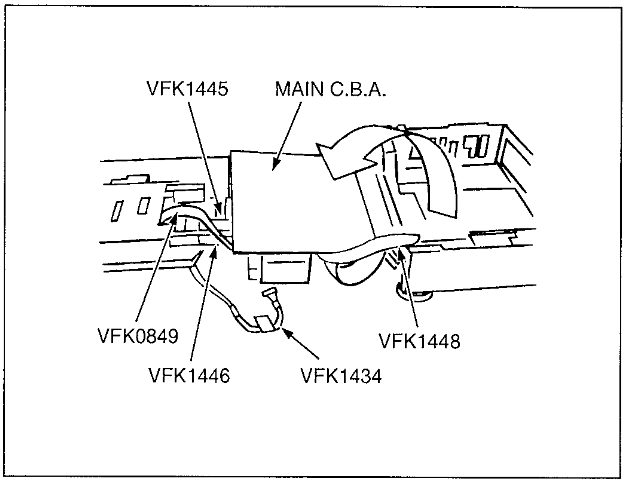

VFK1445
MAIN C.B.A.
VFK0849
VFK1448
VFK1446
VFK1434

Fig. 2-4 Service Position for Main C.B.A.

2-3. Preparation for Electrical Adjustment (How to connect PC EVR "Tatsujin")

Remove the EVR Connection C.B.A. on the AV Digital C.B.A and connect the following cables as shown in Fig. 2-5.

Note 1:
When EVR Connection C.B.A. is installed, confirm the direction of the arrow on the C.B.A. as shown in Fig. D-5 on page 2-3.
Note 2:
Before starting adjustment, confirm that all of switch set to Normal position.

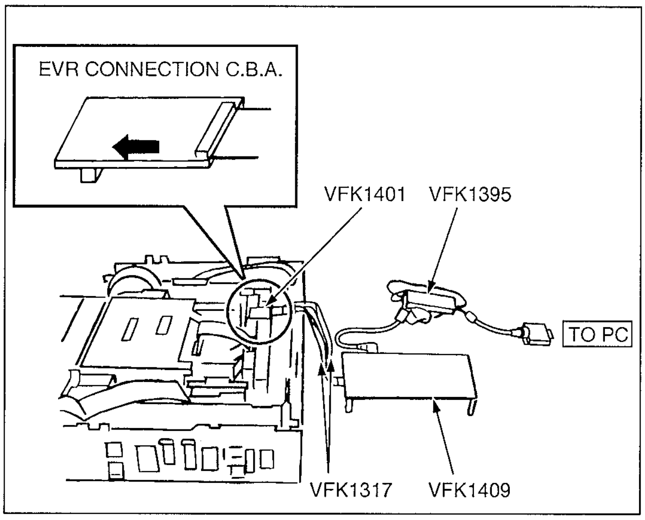

EVR CONNECTION C.B.A.
VFK1401
VFK1395
TO PC
VFK1317
VFK1409

Fig. 2-5 Set up for Tatsujin

No.	Part No.	Part Name	Q'ty	Remarks
1	VFK1317	30 Pin Flat Cable	2	
2	VFK1395	232C (M3) I/F Cable	1	
3	VFK1409	Measuring Board	1	
4	VFK1410	EVR Connection Board	1	

Fig. 2-6 Extension Cable for Tatsujin

3. Service Information Display

In the Service Information Display, there are four digits divided into 3 functions, Service Mode, Service Data Number and Service Information Number.

This information aids trouble shooting by indicating the source of the malfunction. The service mode number and service data number are used by the technician during repair while the service information can be used by the consumer to diagnose malfunctions allowing the technical to provide a more accurate repair cost estimate and reduce repair time.

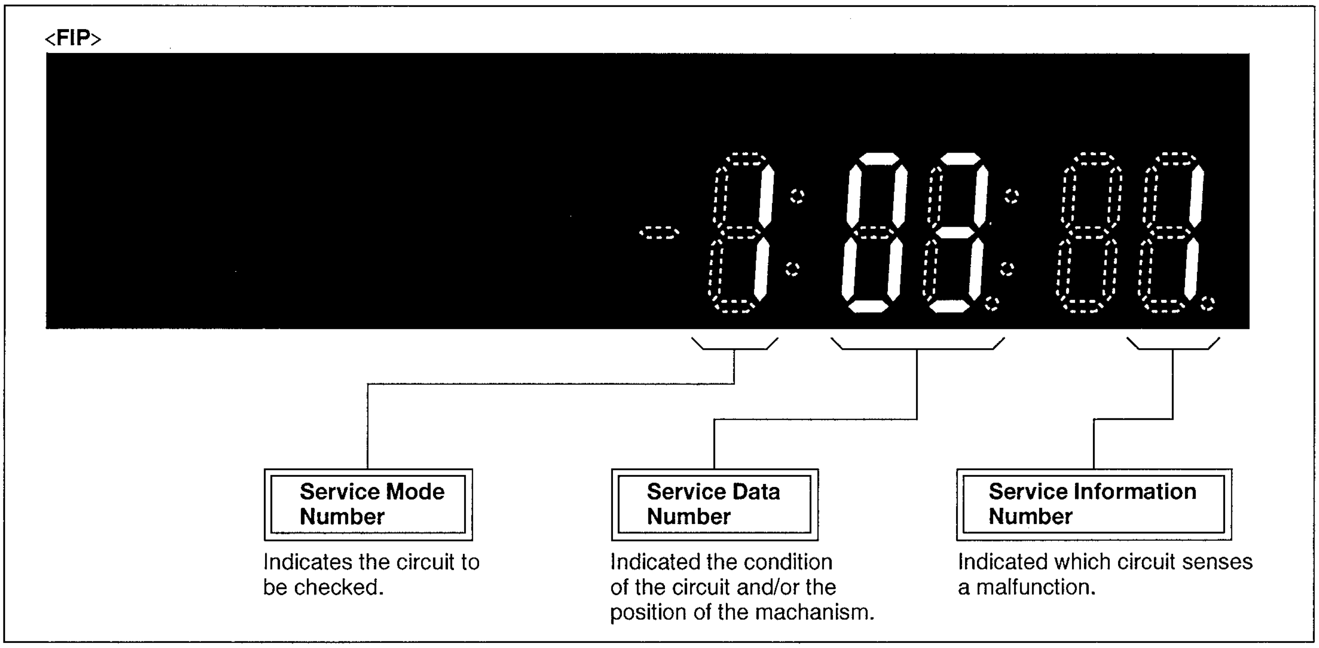

<FIP>
Service Mode Number
Indicates the circuit to be checked.
Service Data Number
Indicated the condition of the circuit and/or the position of the machanism.
Service Information Number
Indicated which circuit senses a malfunction.

Fig. 2-5 Service Information Display

3-1. Set Service Mode

Press the FF and Eject button simultaneously.

The display will change "0.** :**

Pressing the FF and Eject button simultaneously will change the Service Mode Number as follows. (Refer to Fig. 2)

Mode 1 : Check tape protection circuit
Mode 2 : Check tape transport mechanism
Mode 3 : Check mode switching operation
Mode 4 : Check tray in /out operation
Mode 5 : Check control buttons
Mode 6 : Check mode switching and solenoid operations
Mode 7 : Check loading / unloading operation

The first digit indicates which of the above 7 service modes that the unit is currently in.

The second and third digits are service data that indicate the condition of the circuit or mechanism being checked.

The forth digit is the service information display. It is to be used by the consumer to help determine the source of a malfunction. The service information display operates independently of the service modes and stores the fault indication in memory for as long as AC power is not supplied.

<table>
<tr><th>Service Mode Number</th><th>Service Data Numbers</th><th>Indication</th><th>Remarks</th></tr>
<tr><td rowspan="4">1
Tape Beginning/ End detect</td><td>00</td><td>Light detected at both sensors.</td><td></td></tr>
<tr><td>01</td><td>Tape Beginning.
Light to Supply Photo Sensor is blocked.</td><td></td></tr>
<tr><td>02</td><td>Tape End.
Light to Take-up Photo Sensor is blocked.</td><td></td></tr>
<tr><td>03</td><td>No light detected at either sensor.</td><td></td></tr>
<tr><td rowspan="5">2
Mechanism position detect</td><td>03</td><td>Cassette Down</td><td></td></tr>
<tr><td>05</td><td>H/L Position</td><td></td></tr>
<tr><td>07</td><td>Middle Position</td><td></td></tr>
<tr><td>09</td><td>Stop Position</td><td></td></tr>
<tr><td>33</td><td>Tray Open Position</td><td></td></tr>
<tr><td rowspan="7">3
Process mode detect</td><td>0*, 2*, 3*</td><td>Tray In → Stop</td><td></td></tr>
<tr><td>6*</td><td>Stop → Play</td><td></td></tr>
<tr><td>8*</td><td>Play → Cue</td><td></td></tr>
<tr><td>9*</td><td>Play → Rev</td><td></td></tr>
<tr><td>n*</td><td>Stop → FF/Rew</td><td></td></tr>
<tr><td>2*</td><td>Loading</td><td></td></tr>
<tr><td>L*</td><td>Unloading</td><td></td></tr>
<tr><td rowspan="2">4
Tray process mode detect</td><td>1*</td><td>Tray In condition</td><td></td></tr>
<tr><td>*2→ *3→ *4→ 00</td><td>Tray Out condition</td><td></td></tr>
<tr><td rowspan="7">5
Mode detect</td><td>00</td><td>Stop</td><td></td></tr>
<tr><td>02</td><td>Rew</td><td></td></tr>
<tr><td>03</td><td>FF</td><td></td></tr>
<tr><td>04</td><td>Rev</td><td></td></tr>
<tr><td>05</td><td>Cue</td><td></td></tr>
<tr><td>08</td><td>Play</td><td></td></tr>
<tr><td>0U</td><td>Rec</td><td></td></tr>
<tr><td rowspan="4">6
Mechanism position detect</td><td>1U</td><td rowspan="4"><table>
<tr><th>Solenoid condition</th><th>Pinch</th><th>S Reel</th><th>T Reel</th></tr>
<tr><td>Stop</td><td>On</td><td>Off</td><td>Off</td></tr>
<tr><td>FF/REW</td><td>Off</td><td>Off</td><td>Off</td></tr>
<tr><td>Tray In/Out</td><td>Off</td><td>On</td><td>On</td></tr>
<tr><td>Loading</td><td>Off</td><td>Off</td><td>On</td></tr>
</table></td><td rowspan="4"></td></tr>
<tr><td>16</td></tr>
<tr><td>2U</td></tr>
<tr><td>29</td></tr>
<tr><td>7
Checks loading/unloading operation</td><td>————</td><td>The Loading Motor rotates for loading operation when the “Play” button is pressed.
The Loading Motor rotates for unloading operation when the “Stop” button is pressed.</td><td>Tape not required.</td></tr>
</table>

Fig. 3-2 Service Mode Number

3-2. Self-Test Mode

This VTR has a self-diagnosis and display function. If the VTR detects trouble during installation or during use, one of the following Fault Indication Codes will automatically appear in the VTR display. Fault Indication codes are displayed in the form of a single English letter plus two numbers such as "H01"

Note;

1. The indication "H" or "F" is displayed on the FIP, and the power is automatically turned off.

When the power is turned on again, the Fault Indication Code will disappear and the unit will return to normal display mode (either clock or counter).

2. This Fault Indication Code will be stored in the Timer microprocessor even with the AC plug disconnected.

The two-digit number portion of the stored Fault Indication Code can be redisplayed in the FIP' s "second" display position (the last 2 digits on the light) by placing the unit is Service Mode Number 2 when turning on Service Information Display as for example "01" or "02" etc.

If a second error occurs, only the most recent error will be displayed and stored.

3. To erase the stored Fault Indication Code data, press "FF" and "Eject" button simultaneously more than 5 seconds.

Display		Condition	Cause	Remedy/Check
H	H01	Cylinder Lock	After Cylinder lock is detected, the Cylinder does not start rotating again even after tape unloading.	Check the cylinder motor drive.
	H02	Capstan Lock	Cassette tape is not wound up during tape unloading.	Check the capstan motor drive.
F	F03	Loading Lock	Mechanism locks during tape loading.	1. Check the loading motor drive. 2. Check the mecha. phase alignment.
	F04	Unloading Lock	Mechanism locks during tape unloading.	
	F05	Reel FG Detection	Detects abnormal condition during tape loading/unloading.	Check the tension sensor and supply and take-up reel drive.
	F06	Tray In Lock	Tray Motor locks during Tray In.	1. Check the tray motor drive. 2. Check the tray phase alignment.
	F07	Tray Out Lock	Tray Motor locks during Tray Out.	
	F08	Tension Sensor Detection	Detects abnormal condition during tape loading.	1. Check the tension sensor and supply and take-up reel drive.

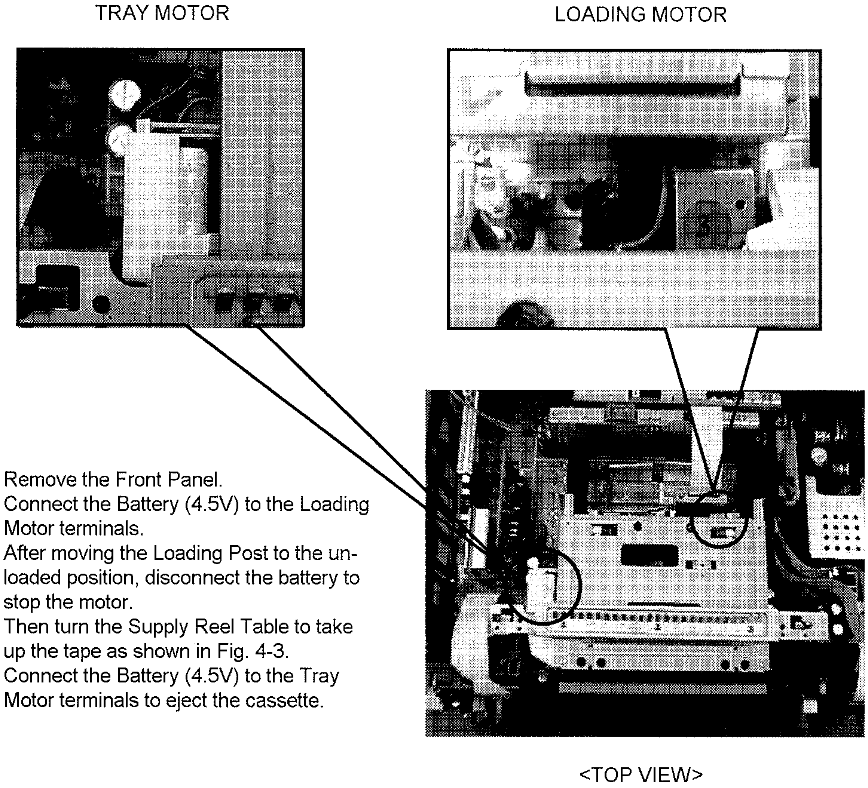
Fig. 3-3 Self-Test Indication Display

4. Removal of the Cassette Tape

If the electrical circuit is defective and the action of unloading and front unloading do not work properly, it is possible to remove the cassette manually.

There are 2 methods to remove the cassette as follows.

4-1. Battery Operation

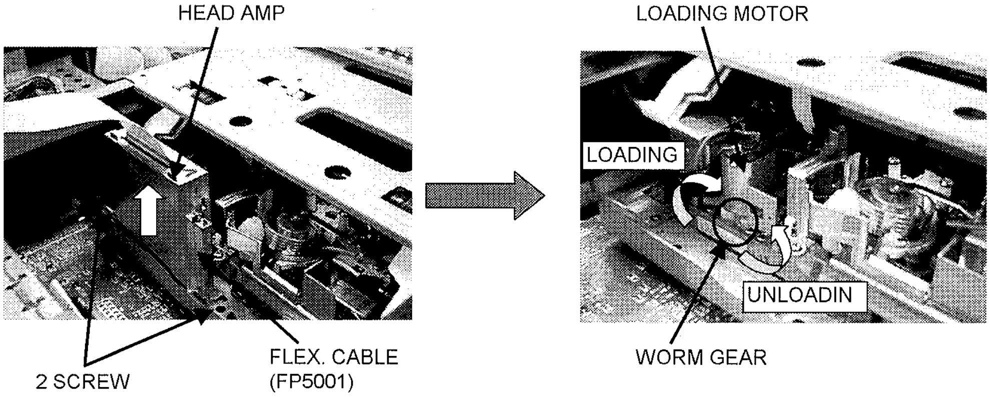

TRAY MOTOR
LOADING MOTOR
<TOP VIEW>

1. Remove the Front Panel.
2. Connect the Battery (4.5V) to the Loading Motor terminals.
3. After moving the Loading Post to the unloaded position, disconnect the battery to stop the motor.
4. Then turn the Supply Reel Table to take up the tape as shown in Fig. 4-3.
5. Connect the Battery (4.5V) to the Tray Motor terminals to eject the cassette.

Fig. 4-1

4-2. Hand Operation

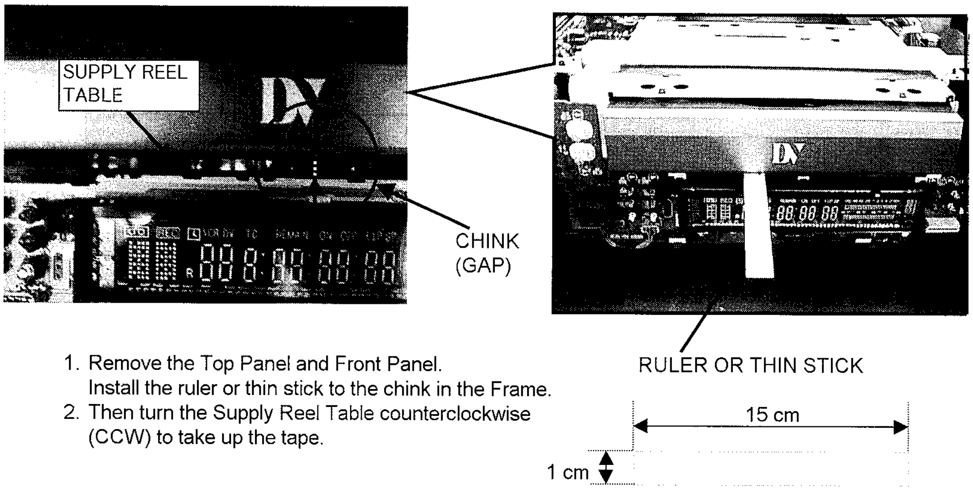
1. Unload the loading post by turning the loading motor


HEAD AMP
LOADING MOTOR
LOADING
UNLOADIN
2 SCREW
FLEX. CABLE
(FP5001)
WORM GEAR

1. Remove the Head Amp Unit by removing 2 screws.
2. Disconnect the Flex. Cable after removing the Shield Case.
3. Then carfully turn the Worm Gear counterclockwise (CCW) by using the small driver.

Fig. 4-2

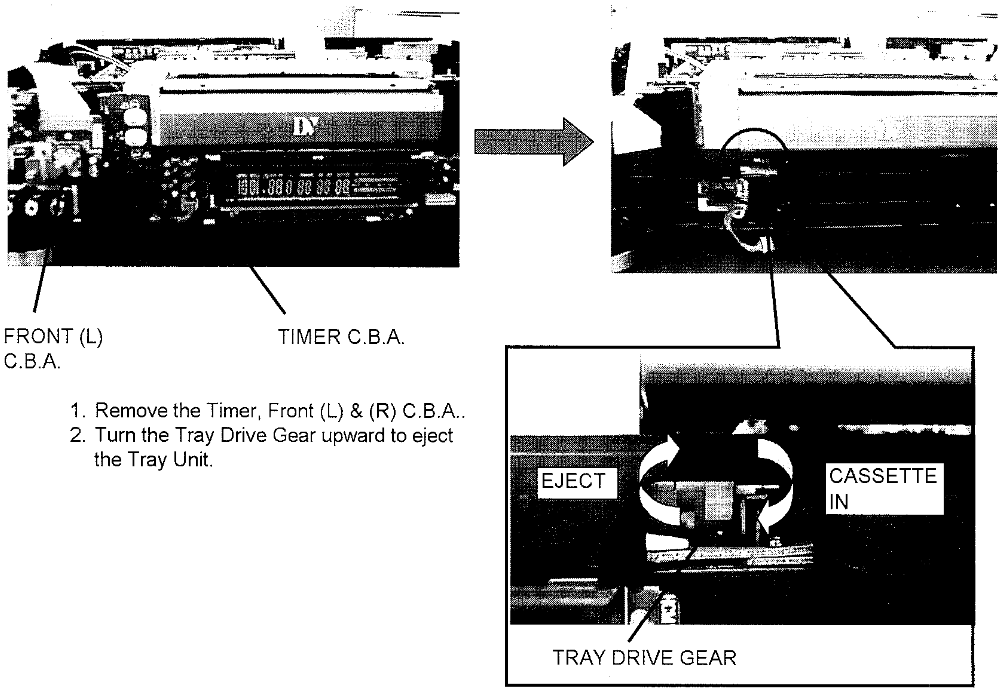
2. Take up the tape by turning the supply reel table


SUPPLY REEL TABLE
CHINK (GAP)
RULER OR THIN STICK
15 cm
1 cm

1. Remove the Top Panel and Front Panel.
   Install the ruler or thin stick to the chink in the Frame.
2. Then turn the Supply Reel Table counterclockwise (CCW) to take up the tape.

Fig. 4-3

3. Eject the tray by turning the tray motor


FRONT (L) C.B.A.
TIMER C.B.A.
EJECT
CASSETTE IN
TRAY DRIVE GEAR

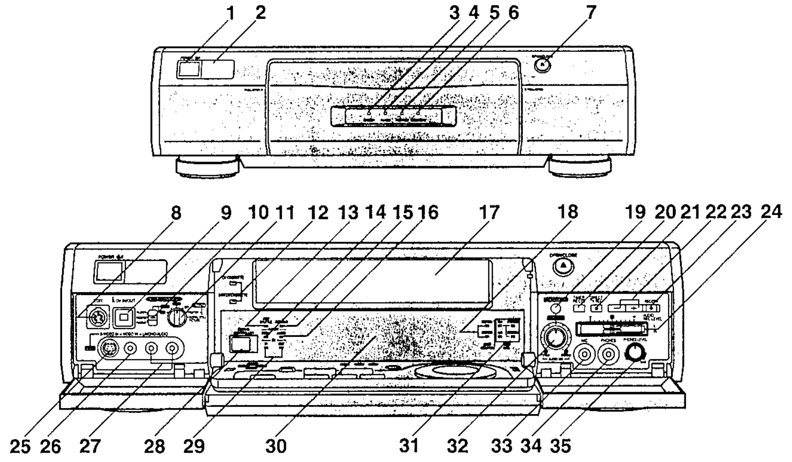
1. Remove the Timer, Front (L) & (R) C.B.A..
2. Turn the Tray Drive Gear upward to eject the Tray Unit.

Fig. 4-4

1-5. OPERATING INSTRUCTIONS

Control and Connection Sockets

This section gives a detailed explanation of the function of each button, switch and connection socket.



FRONT

1 **POWER ⏻/I**
Press to switch the VCR from on to standby mode or vice versa. In standby mode, the unit is still connected to the mains.

2 **Infra-red Remote Control Receiver Window**

3 **STANDBY Indicator**
This indicator is lit when main lead is connected and the power is off.

4 **POWER Indicator**
This indicator is lit when the power is on.

5 **TIMER REC Indicator**
This indicator is lit when the timer recording function is on.

6 **CASSETTE IN Indicator**
This indicator is lit when a cassette is inserted.

7 **OPEN/CLOSE**
Press to open the front panel or open/close the cassette tray.

8 **EDIT**
By connecting a movie camera or VCR with an EDIT socket to this socket via an Edit cable, various kinds of editing functions can be performed more quickly and efficiently between two VCRs or between a VCR and a movie camera.

9 **DV IN/OUT (i)**
To connect the DV cable to digital video equipment with IEEE 1394-1995 compatible DV terminal.
"i.LINK" is the name of the connector in accordance with the International Standard IEEE1394-1995.
"i" is the logo marked on products conforming with the "i.LINK" specifications. For further details on the DV terminal, refer to the Glossary of Terms on page 92.

10 **EDIT MODE**

PLAYER:	When this VCR is used as the playback VCR during editing operations.
RECORDER:	When this VCR is used as the recording VCR during editing operations. • Normally set at this position.
PASSIVE:	When operating this VCR using another VCR or an editing controller. • The picture quality best suited for editing is selected.

11 **EDIT CONTROL**
To select a connected component when another component is to be connected for editing, etc.

12 **DV CASSETTE/MINI DV CASSETTE Indicators**
This indicator corresponds to the size of the cassette inserted is lit.

13 **JOG/SHUTTLE Indicator**
While this display is lit, the unit is set to the Jog/Shuttle mode.

- Check that the display is lit before proceeding with a jog or shuttle operation.
- The display is automatically turned off if no operation is performed.

14 **VIDEO INSERT Indicator**
This indicator is lit when the Video Insert editing is performed.

15 **AUDIO DUB Indicator**
This indicator is lit when the Audio Dubbing or Audio Mixing is performed.

16 **AUDIO INSERT Indicator**
This indicator is lit when the Audio Insert editing is performed.

17 **Cassette Tray**

18 **Indicators for AUDIO MONITOR**
The audio track selected by **STEREO SELECT** lights. (This applies to a tape recorded in the 12bit audio mode only.)

19 **MIXING EDIT**
For Mixing Editing.

20 **TIMER REC**
To turn the timer recording function on and off.
⏲ is lit when the function is on (standby mode).
Once the operating timer recording function is set, normal VCR operation is not possible unless this button is set to off.

21 **DIRECTTV REC**
For the Direct TV REC function.

22 **∨ ∧**
To select the required programme position (TV station) of the VCR.

23 **REC/OTR**
To start recording.
For One-Touch Recording (OTR).

24 **AUDIO REC LEVEL**
To adjust the audio recording level to peak at +4 dB on the recording level indicator.

- When **INPUT SELECT** is set to DV IN the audio recording level cannot be adjusted.

25 **S-VIDEO IN (AV3)**
To connect the S-Video cable to a movie camera or to another VCR that has an S-Video output socket.

- If an S-Video cable is connected, other video input (AV3) is automatically switched off.

26 **VIDEO IN (AV3)**
To connect the video cable to a movie camera or to another VCR.

27 **AUDIO IN (AV3)**
To connect the audio cable to a movie camera or to another VCR.

28 **EDITING CONTROLLER Socket**
When using the editing controller separate from the main unit, remove the modular cap and then connect the editing controller cable.

29 **DV IN/OUT Indicators**

DV IN:	This indicator is lit when **INPUT SELECT** is set to DV IN.
DV OUT:	This indicator is lit when a playback operation is performed using this VCR or when **INPUT SELECT** is set to other than DV IN.

30 **Display**

31 **Indicators for AUDIO DATA**
Displays the audio data that is to be recorded, or the audio data on a tape that has already been recorded. The audio recording mode can be set in the SET UP menu.

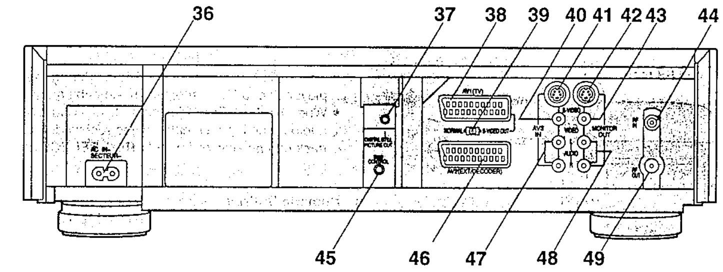
12bit-STEREO1:	To play back a tape that is recorded in 12bit audio mode
12bit-STEREO2:	To play back a STEREO2 audio tape recorded in the 12bit audio mode
16bit :	To play back a tape that is recorded in 16bit audio mode.

32 **AUDIO MIX Level**
Adjusts the volume of the original audio (STEREO1) for Audio Mixing function.

33 **MIC**
To connect to a microphone for recording. Once connected, this socket has priority.

34 **PHONES**
To connect stereo headphones.

35 **PHONES LEVEL**
For adjusting the volume level of connected stereo headphones.



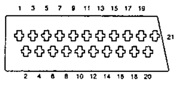
REAR

36 AC IN~
To connect to the main power supply.

37 DIGITAL STILL PICTURE OUT
To connect the VCR with a computer in order to transmit the image data to the computer.

38 AV1 (TV)
This 21-pin scart terminal carries input and output signals for both picture and sound. TV sets equipped with a similar socket can be connected here.

The scart terminal is also called	Peritel Euro Connector Euro AV



NORMAL (AV1/AV2)	S-VIDEO (AV1)
01 AUDIO OUTPUT CH2 (R)	01 AUDIO OUTPUT CH2 (R)
02 AUDIO INPUT CH2 (R)	02 AUDIO INPUT CH2 (R)
03 AUDIO OUTPUT CH1 (L)	03 AUDIO OUTPUT CH1 (L)
04 AUDIO GND	04 AUDIO GND
05 BLUE GND	05 No connection
06 AUDIO INPUT CH1 (L)	06 AUDIO INPUT CH1 (L)
07 BLUE	07 No connection
08 SWITCHING VOLTAGE	08 SWITCHING VOLTAGE
09 GREEN GND	09 No connection
10 CONTROL SIGNAL (AV1 only)	10 CONTROL SIGNAL
11 GREEN	11 No connection
12 No connection	12 No connection
13 RED GND	13 C OUT GND
14 BLANKING GND	14 No connection
15 RED	15 C OUT
16 BLANKING	16 No connection
17 VIDEO OUTPUT GND	17 Y OUT GND
18 VIDEO INPUT GND	18 VIDEO INPUT GND
19 VIDEO OUTPUT	19 Y OUT
20 VIDEO INPUT	20 VIDEO INPUT
21 GND	21 GND

Caution: RGB reservation for only E/E operation when connecting the Pay TV decoder.

39 NORMAL/S-VIDEO OUT
NORMAL: Normally set to this position.
S-VIDEO OUT (AV1):
Set to this position when connecting the VCR to a TV set equipped with 21-pin Euro-AV Connector with pins for separate Y/C signal input.

40 VIDEO IN (AV3)
To connect the video cable to a movie camera or to another VCR.
- If units are connected to the VIDEO input sockets on both the front and rear of this VCR, the rear video inputs are automatically switched off.

41 S-VIDEO IN (AV3)
To connect the S-Video cable to a movie camera or to another VCR that has an S-Video output socket.
- If an S-Video cable is connected, other video input (AV3) is automatically switched off.
- If units are connected to the VIDEO input sockets on both the front and rear of this VCR, the rear video inputs are automatically switched off.

42 S-VIDEO OUT
To connect the S-Video cable to a TV or another VCR that has an S-Video input socket.

43 VIDEO OUT
To connect the video cable to a TV or to another VCR.

44 RF IN
To connect to the external aerial.

45 8mm CONTROL
To connect a movie camera or another VCR equipped with LANC socket for editing.

46 AV2 (EXT/DECODER)
To connect to a decoder or another VCR.

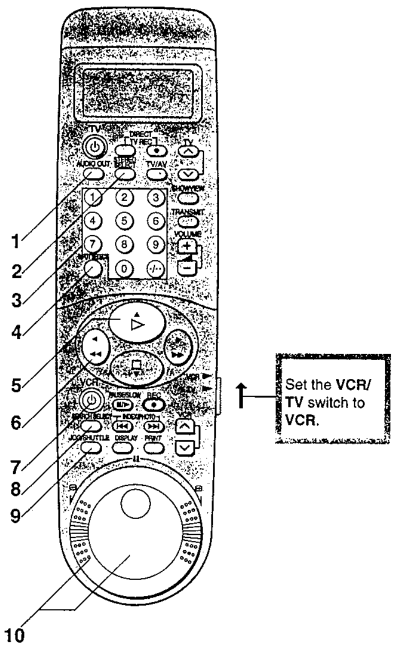
47 AUDIO IN (AV3)
To connect the audio cable to a movie camera or to another VCR.

48 AUDIO OUT
To connect the audio cable to a stereo audio system.

49 RF OUT
To connect to the aerial terminal on a TV set.

Infra-red Remote Controller

VCR OPERATION



Set the **VCR/ TV** switch to **VCR.**

1 **AUDIO OUT**
To select the desired sound mode.
At every push of this button, the audio output mode changes as follows.

→ Stereo → Left → Right

The Left(L) and Right(R) Indicators shown which sound mode is selected in the following way.

Stereo:	Both the L and R Indicators appear.
Left:	The L Indicator appears.
Right:	The R Indicator appears.

2 **STEREO SELECT**
To select the audio track (STEREO1 audio and/or STEREO2 audio) on a tape which was recorded in the 12bit audio mode. During playback, each time the button is pressed, the sound changes as follows:

→ STEREO1 → STEREO2 → STEREO1 STEREO2 (MIX)

- The audio track cannot be selected during the playback of a tape recorded in the 16bit audio mode.
- When **INPUT SELECT** is set to DV IN and a 12bit audio mode input signal is being received, the audio track can be selected by **STEREO SELECT** at any time.

3 **Numeric Buttons**
Be sure that the **VCR/TV** switch is set to **VCR**.
- To select the programme positions (1-99) of the VCR.
  9: ⑨
  19: (-/--) → ① → ⑨
- To enter a ShowView number

4 **INPUT SELECT**
To select the A1, A2 , A3 or DV IN external recording source.

5 **▷ (PLAY)**
To start playback. "▷" is lit during playback.

6 **◀◀ (REWIND)**

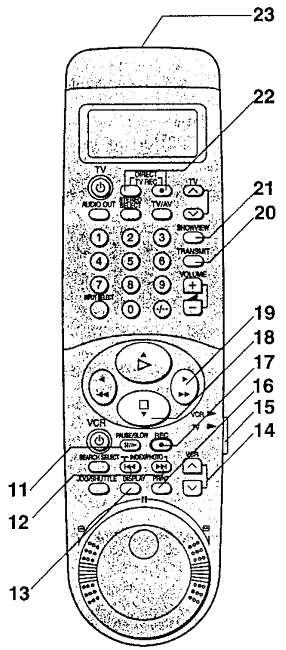
In the stop mode:	To rewind the tape.
In the playback mode:	To search backward for a scene.
In the rewind mode:	To view the video. "◁◁" is lit during rewind.

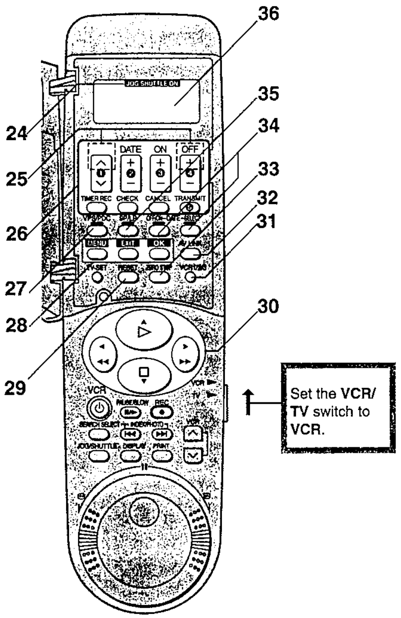
7 **VCR ⏻**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still connected to the mains.

8 **SEARCH SELECT**
To search for a recorded programme using the index/photoshot index search function.

9 **JOG/SHUTTLE**
Press this to switch to the Jog/Shuttle mode and make JOG/SHUTTLE ON appear on the remote controller display. Press again to make JOG/SHUTTLE ON disappear.
In the stop mode: Still picture (Jog/Shuttle mode).
During playback: Still picture (Jog/Shuttle mode).

10 **Jog Dial/Shuttle Ring**
Jog Dial (inner dial):
Operate after pressing **JOG/SHUTTLE** to switch to the Jog/shuttle mode.
To locate any desired field with utmost precision.
Shuttle Ring (outer ring):
Operate after pressing **JOG/SHUTTLE** to switch to the Jog/shuttle mode.
To adjust playback speed backward or forward.





Set the **VCR/** **TV** switch to **VCR.**

11 PAUSE/SLOW (❚❚/❚▸)
During playback:
- When pressed once: Still picture. "❚❚" is lit.
- When pressed for 2 seconds or more: Slow playback. "❚▷" is lit.

During recording: To pause recording.

12 INDEX/PHOTO
For the index/photoshot index search function.

13 DISPLAY
To change the VCR display indication as follows:

→Clock ⟶ Time ⟶ Remaining ⟶ Counter
Code Tape Time

14 ∨ ∧ (VCR)
To select the required programme position (TV station) of the VCR.

15 VCR/TV switch
VCR: To select the VCR operation mode.
TV: To select the TV operation mode.

16 PRINT
To print out images when the VCR is connected to a video printer with an Edit socket.

17 REC
To start recording.

18 □ (STOP)
To stop playback or recording.

19 ▸▸ (FAST FORWARD)
In the stop mode: To fast forward the tape.
In the playback mode: To search forward for a scene.
In the fast forward mode: To view the video. "▷▷" is lit during fast forward.

20 TRANSMIT
To transmit the data that has been set on the remote controller to the VCR.

21 SHOWVIEW
For the ShowView programming.

22 DIRECT TV REC
For the Direct TV REC function.
Press both buttons at the same time.

23 Infra-red Transmitter

24 JOG/SHUTTLE ON Display
While this display is lit, the VCR is set to the Jog/Shuttle mode.
- Check that the display is lit before proceeding with a jog or shuttle operation.
- The display is automatically turned off if no operation is performed.

25 ∧ , OFF+
For the Child Lock Function.
See the description on page 11.

26 Timer Recording Operation Buttons
∨ ∧, DATE, ON, OFF: To programme a timer recording.
TIMER REC: To turn the timer recording function on and off. ⏲ is lit when the function is on (standby mode). Once the operating timer recording function is set, normal VCR operation is not possible unless this button is set to off.
CHECK: To programme a timer recording. To check and modify timer programmes.
CANCEL: To cancel timer programmes.
TRANSMIT: To transmit the data that has been set on the remote controller to the VCR.

27 VPS/PDC
To set the VPS/PDC recording option or cancel the option.

28 On Screen Display Menu Operation Buttons
The buttons with the green characters are used for the on screen display menu operation.
MENU: To make the On Screen Display **Main menu** appear on the TV screen.
EXIT: To exit the menu completely.
OK: To confirm the selection, or to store.

29 RESET
To reset the tape counter (elapsed time) to "0:00.00".
- The tape counter is automatically reset to "0:00.00" when a video cassette is inserted.
- It is not possible to reset the Time code to "0h00m00s00f" using **RESET.**

30 ▲ ▼ ◀ ▶
To make selections from the On Screen Display.
(When the On Screen Display is displayed.)
These buttons can also be used for the playback, stop, rewind and fast forward mode.
(When the On Screen Display is not displayed.)

31 VCR1/2/3
To select the remote control mode. The selected mode appears on the remote controller display.
VCR1: Set this position on both the VCR and remote controller for normal use with one VCR.
VCR2: Set this position when using two Panasonic VCRs.
VCR3: Set this position when using three Panasonic VCRs.
- When the VCR's remote control mode has been switched, select the same remote control mode on the editing controller as well.

32 AV LINK
To select the VCR mode or TV mode for AV LINK.

33 ZERO STOP
For the zero stop function.

34 DATE-OFF/ON, DATE-SELECT
When pictures are recorded using the NV-DV10000 or a Panasonic Digital Video Camera, the date and time of the recording are automatically recorded onto the tape's sub code track.
This button is used to select the information to be displayed on the On Screen Display.

DATE-OFF/ON:
To make the Date/Time indication appear on the TV screen.

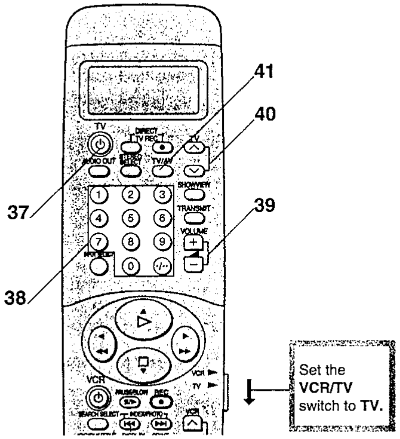
DATE-SELECT:
To change the indication to be displayed on the TV screen as follows:

→Date ⟶ Date ⟶ Time
Time

35 SP/LP
To select the tape speed desired for recording.

36 Display

TV OPERATION



Set the **VCR/TV** switch to **TV.**

37 **TV ⏻**
Press to switch the TV from on to standby mode or vice versa. In standby mode, the TV is still connected to the mains.
- With some TV models, it may only be possible to switch the TV to the standby mode using this button. In this case, use the numeric buttons, **TV/AV** or ∨ ∧ to switch the TV on.

38 **Numeric Buttons**
To select programme positions (1-99) of the TV.
- Be sure that the **VCR/TV** switch is set to **TV.**

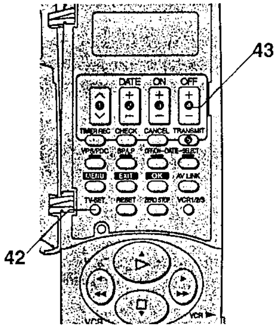
39 **◢ VOLUME**
To adjust the volume of the TV.

40 **∨ ∧ (TV)**
To select the required programme position (TV station) of the TV.

41 **TV/AV**
To switch between TV channels and external input channels.

42 **TV-SET**
To set the remote controller for operation of the TV.

43 **OFF**
Sets the remote controller for operation of the TV.

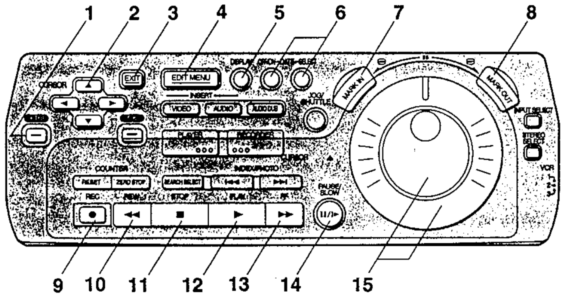


Child Lock function

Holding down ∧ and **OFF+** until "▷◁" and "hold" appear in the VCR display will deactivate all buttons. Any external commands will not be processed by the VCR.

To cancel this function, repeat the same procedure until "▷◁" and "hold" disappear.
- If a button is pressed while the Child Lock function is on, "▷◁" and "hold" appear in the VCR display.
- When the power is disconnected, the Child Lock function is automatically cancelled after the roughly 60 minutes of backup time.

Editing Controller



1 **SET UP**
To make the SET UP screen appear on the TV screen. When the SET UP screen is displayed, use this button to return to the previous screen.

2 **▲ ▼ ◀ ▶ (CURSOR)**
To make selections from the SET UP or EDIT MENU screen. (When the SET UP or EDIT MENU screen is displayed.)

3 **EXIT**
To exit the SET UP or EDIT MENU screen.

4 **EDIT MENU**
To make the EDIT MENU screen appear on the TV screen, and to return to the previous screen. This button is also used to stop editing functions using the EDIT MENU screen.

5 **DISPLAY**
To change the VCR display indication as follows:

$$\begin{tikzcd} \text{Clock} \arrow[r] & \text{Time Code} \arrow[r] & \text{Remaining Tape Time} \arrow[r] & \text{Counter} \arrow[lll, bend left] \end{tikzcd}$$

6 **DATE-OFF/ON, DATE-SELECT**
When pictures are recorded using the NV-DV10000 or a Panasonic Digital Video Camera, the date and time of the recording are automatically recorded onto the tape's sub code track.
This button is used to select the information to be displayed on the On Screen Display.

DATE-OFF/ON:
To make the Date/Time indication appear on the TV screen.
DATE-SELECT:
To change the indication to be displayed on the TV screen as follows:

$$\begin{tikzcd} \text{Date Time} \arrow[r] & \text{Date} \arrow[r] & \text{Time} \arrow[ll, bend left] \end{tikzcd}$$

7 **MARK IN**
To set edit start points for Programme Editing.

8 **MARK OUT**
To set edit end points for Programme Editing.

9 **REC**
To start recording.

10 **◀◀ (REWIND)**

In the stop mode:	To rewind the tape.
In the playback mode:	To search backward for a scene.
In the rewind mode:	To view the video. "◁◁" is lit during rewind.

11 **■ (STOP)**
To stop playback or recording.

12 **▶ (PLAY)**
To start playback. "▷" is lit during playback.

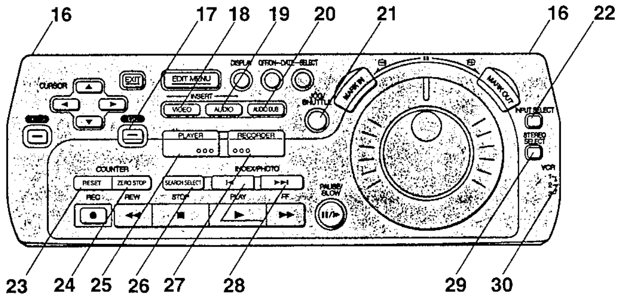
13 **▶▶ (FAST FORWARD)**

In the stop mode:	To fast forward the tape.
In the playback mode:	To search forward for a scene.
In the fast forward mode:	To view the video. "▷▷" is lit during fast forward.

14 **PAUSE/SLOW (❚❚/❚▶)**
During playback:
- When pressed once: Still picture. "▯▯" is lit.
- When pressed for 2 seconds or more: Slow playback. "▯▷" is lit.

During recording: To pause recording.

15 **Jog Dial/Shuttle Ring**
Jog Dial (inner dial):
Operate after pressing **JOG/SHUTTLE** to switch to the Jog/shuttle mode.
To locate any desired field with utmost precision.
Shuttle Ring (outer ring):
Operate after pressing **JOG/SHUTTLE** to switch to the Jog/shuttle mode.
To adjust playback speed backward or forward.



16 Infra-red Transmitter

17 OK
To start Manual editing and to store the selection on the SET UP or EDIT MENU screen.

18 VIDEO INSERT
For the Video Insert function and the AV Insert function.

19 AUDIO INSERT
For the Audio Insert function and the AV Insert function.

20 AUDIO DUB
For the Audio Dubbing function or the Audio Mixing function.

21 JOG/SHUTTLE
To switch to the Jog/Shuttle mode. When the button is pressed, it lights and the VCR enters the Jog/Shuttle mode.
In the stop mode: Still picture (Jog/Shuttle mode).
During playback: Still picture (Jog/Shuttle mode).

22 INPUT SELECT
To select the A1, A2 , A3 or DV IN external recording source.

23 RESET
To reset the tape counter (elapsed time) to "0:00.00".
- The tape counter is automatically reset to "0:00.00". when a video cassette is inserted.
- It is not possible to reset the Time code to "0h00m00s00f" using **RESET.**

24 ZERO STOP
For the zero stop function.

25 PLAYER
To operate the playback unit.

26 SEARCH SELECT
To search for a recorded programme using the index/photoshot index search.

27 RECORDER
To operate the recording VCR.

28 INDEX/PHOTO
For the index/photoshot index search function.

29 STEREO SELECT
To select the audio track (STEREO1 audio and/or STEREO2 audio) on a tape which was recorded in the 12bit audio mode. During playback, each time the button is pressed, the sound changes as follows:

→ STEREO1 → STEREO2 → STEREO1 STEREO2 (MIX) ─┐ (returns to STEREO1)

- The audio track cannot be selected during the playback of a tape recorded in the 16bit audio mode.
- When **INPUT SELECT** is set to DV IN, the audio track can be selected by **STEREO SELECT** at any time: it does not have to be during playback.

30 VCR1/2/3
To select the remote control mode.The selected mode appears on the remote controller display.

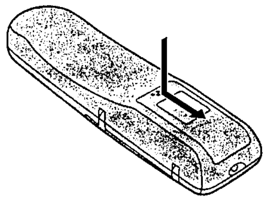
VCR1:	Set this position on both the VCR and remote controller for normal use with one VCR.
VCR2:	Set this position when using two Panasonic VCRs.
VCR3:	Set this position when using three Panasonic VCRs.

Note:
The VCR display cannot be swiched between the Time code display and the tape counter display while editing is in progress.

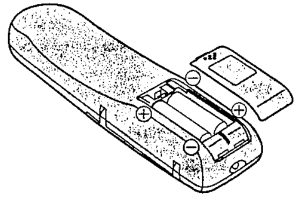
Remote Controller Setup

Installing the Batteries

1 To remove the cover, slide it in the direction of the arrow while pressing down.



2 Load the batteries with their polarity (⊕ and ⊖) aligned correctly.



3 Slide the cover back on.

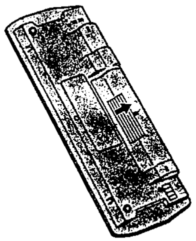
Power Source for the Remote Controller
The remote controller is powered by 2 AA, UM3 or R6 size batteries. The life of the batteries is about one year, although this depends on the frequency of use.

Precautions for Battery Replacement
- Load the new batteries with their polarity (⊕ and ⊖) aligned correctly.
- Do not apply heat to the batteries, or an internal short-circuit may occur.
- If you do not intend to use the remote controller for a long period of time, remove the batteries and store them in a cool, dry place.
- Remove spent batteries immediately and dispose of them.
- Do not use an old and a new battery together, and never use an alkaline battery with a manganese battery.
- Do not use rechargeable batteries.

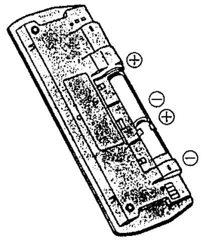
Editing Controller Set Up

Installing the Batteries

1 To remove the cover, slide it in the direction of the arrow while pressing down.



2 Load the batteries with their polarity (⊕ and ⊖) aligned correctly.



3 Slide the cover back on.

Power Source for the Editing Controller
The editing controller is powered by 2 AA, UM3 or R6 size batteries. The life of the batteries is about one year, although this depends on the frequency of use.

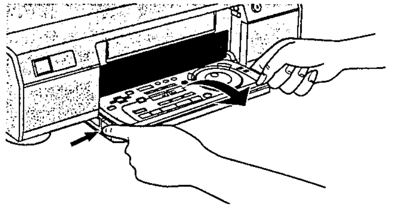
Precautions for Battery Replacement
- Load the new batteries with their polarity (⊕ and ⊖) aligned correctly.
- Do not apply heat to the batteries, or an internal short-circuit may occur.
- If you do not intend to use the editing controller for a long period of time, remove the batteries and store them in a cool, dry place.
- Remove spent batteries immediately and dispose of them.
- Do not use an old and a new battery together, and never use an alkaline battery with a manganese battery.
- Do not use rechargeable batteries.

Operating the Editing Controller

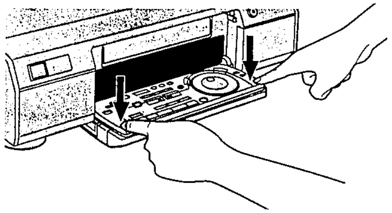
The Editing controller can be operated in any of the following 3 ways:

- It can be operated while remaining attached to the main unit.
- Its batteries can be loaded, and it can be separated from the main unit and operated as the remote controller.
- It can be separated from the main unit, connected using the accessory controller cable and operated as the remote controller.

How to separate the editing controller
While pressing the buttons at the left and right of the main unit's front panel, remove the editing controller with both hands.

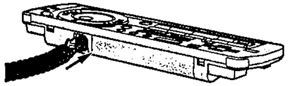


How to attach the editing controller
Push down on the editing controller until the areas around the left and right buttons on the unit's front panel click into position.

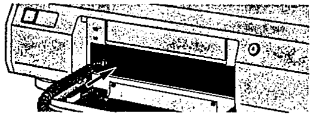


When connecting the editing controller to the video unit using the controller cable

1 Remove the cover over the controller socket on the rear panel of the editing controller, and insert the plug at one end of the accessory controller cable into this socket until it clicks into position.



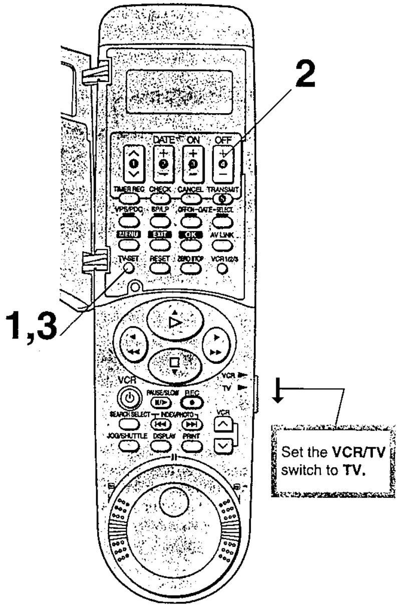
2 Remove the modular cap over the unit's controller socket, and insert the plug at the other end of the accessory controller cable into this socket until it clicks into position.



When using the editing controller as a remote controller
As a remote controller, the editing controller can be operated at a distance up to about 3 m in front and up to an angle of up to about 30 degrees to the left or right of centre. (This range changes in accordance with the ambient brightness.)

Note:
When the VCR's remote control mode has been switched, switch the remote control mode on the editing controller as well.

Setting the Remote Controller to Operate Your TV



Set the **VCR/TV** switch to **TV.**

This setting procedure allows you to operate the TVs of some manufacturers using the supplied remote control transmitter.

Preparation

Turn on the TV.

Operations

1 Keep **TV-SET** pressed for more than 2 seconds.

TV-SET ○

Display Symbols

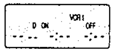
2 Press **OFF** several times.

OFF

- When the number matches the manufacturer of your TV, the TV's power is turned off. Read through the information on the following page as well.

3 Press **TV-SET.**

TV-SET ○



- The remote controller display changes as shown.

How to change the number
Each time the "+" side of **OFF** is pressed, the number is counted up by one as follows:

→1→2→3…30→

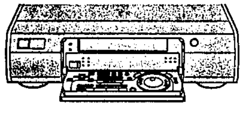
When the "–" side of **OFF** is pressed, the number is counted down by one in the reverse order to that indicated above.

Notes:
- If you are using a Panasonic TV, this setting has already been made, and so you do not need to perform the above setting procedure. However, this remote controller may not work with some Panasonic TVs.
- Some TV models cannot be operated using this remote controller.
- This VCR remote controller is not designed to select all AV positions of some TVs.
Use your TV remote cotroller to select some AV positions.

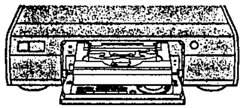
Manufacturer	Number
Panasonic	01-04
BLAUPUNKT	05
BRANDT	15
BUSH	06
CURTIS	06
DUAL	06
ELEMIS	06
FERGUSON	09-12, 14, 15
GOODMANS	06, 09-12, 14, 15
GRUNDIG	05
HITACHI	17, 18, 29, 30
ITT	21
JVC	27
LOEWE	06
METZ	08
MITSUBISHI	28
MIVAR	23
NOKIA	21, 22
NORDMENDE	15
PHILIPS	06
PYE	06
RADIOLA	06
SABA	09, 11, 12, 14, 15
SALORA	22
SAMSUNG	06, 20
SANYO	25
SBR	06
SELECO	21
SHARP	26
SIEMENS	05, 19
SONY	07
TELEFUNKEN	09-16
THOMSON	09-11, 14, 15
TOSHIBA	24

Inserting the Cassette

1 Press **OPEN/CLOSE.**
- The front panel opens.

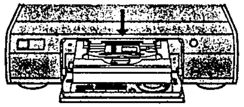


2 Press **OPEN/CLOSE** again.
- The cassette tray is extended.

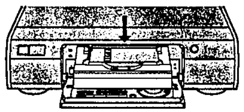


3 Align the cassette with the cassette guide and place it on the tray while ensuring that the side of the cassette with the tape exposed is facing up and the label side is turned toward you.

MINI Cassette



Standard Cassette



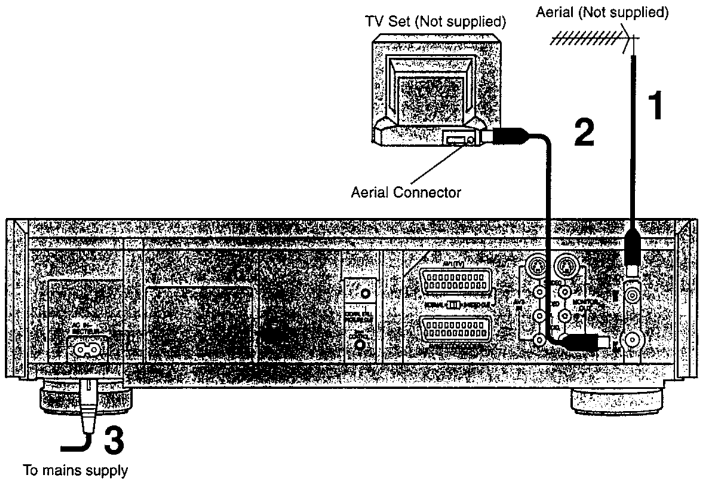
4 Press **OPEN/CLOSE.**
- The cassette tray is retracted inside the video unit.

Connections and Settings Without Using a 21-Pin Scart Cable

1 Connections

The VCR sends signals to the TV via an RF coaxial cable (supplied).

Make the connections shown in the figure below.

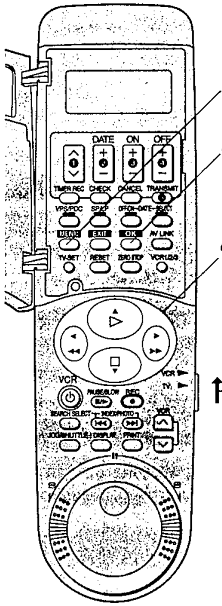


2 Settings

Setting a VCR channel on your TV allows you to view the video picture on your TV in the same way that you watch TV broadcasts.
Once the **Country** setting is completed, the VCR automatically searches for TV stations and sets the clock.
(This is known as Auto Setup.)

Preparation

Turn on the TV and VCR.



Set the **VCR/TV** switch to **VCR**.

Operations

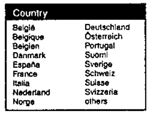
1 Keep **MENU** pressed for 5 seconds or more.
- Hold down the button until "Ch" appears in the VCR display.

2 Set the TV to an unused position which you wish to use for your video playback.
- Tune the TV until the test pattern appears on the screen. Consult the operating instruction of your TV to find out how to tune it.
- The initial setting of the RF output channel is 36ch.

On Screen Display

(Test Pattern)

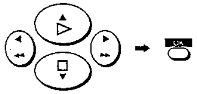
3 Press **OK** to exit the Test Pattern screen. The **Country** setting screen appears.

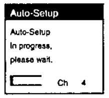


Country

België	Deutschland
Belgique	Österreich
Belgien	Portugal
Danmark	Suomi
España	Sverige
France	Schweiz
Italia	Suisse
Nederland	Svizzera
Norge	others

4 Select the desired country.
Auto Setup (auto tuning and auto clock settings) then starts automatically.

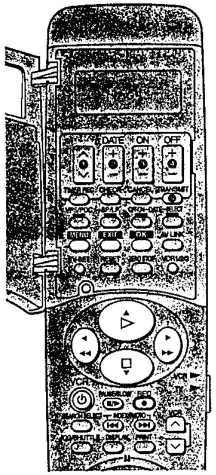




Auto-Setup
Auto-Setup
In progress,
please wait.
Ch 4

To Reset Auto Setup:
Press **EXIT**, then disconnect and reconnect the power source.
The **Country** setting screen will appear on the screen.
Repeat the operations from step **3**.

Notes:
- The Auto Setup searches for TV stations from VHF minimum to UHF maximum and stores the data for every programme position. The other programme positions are skipped.
- The Auto Setup takes five minutes or more to search for the TV stations and set the clock.
- If VCR is not set correctly by Auto Setup, see Various Settings on pages 39-42.
- Auto clock setting will not work correctly if teletext information is not available. If the clock setting screen appears after auto tuning has been completed, set the clock manually.
  Refer to steps **3-5** on page 42.



To Change the RF Output Channel (using the remote controller):

In some rare cases after Auto Setup, interference may be visible on the picture. To avoid interference, you can manually adjust the RF output channel a few steps up or down from the current setting.

Operations

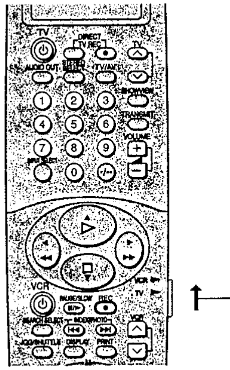
1 Turn on the TV and VCR.
2 Keep **MENU** pressed for 5 seconds or more.
- Hold down the button until "Ch" appears in the VCR display.

3 Enter the desired channel number (21-69) by using the **numeric buttons** or ∨ ∧ of the remote controller.
- Be sure that the **VCR/TV** switch is set to **VCR**.
- Set the RF output channel of the VCR to "– –" (RF OFF) when the VCR is connected to the TV via the 21-pin scart cable.

Press the **"0" numeric button** or ∨ ∧ to display "– –".

→21← ... →69←
→ – – ←
(RF OFF)

4 Press **OK** to finish the setting mode.
- Retune your TV to the new channel for the VCR.
- After the **Country** setting is set, the **Country** setting screen will not be displayed even if the RF output channel is changed and **OK** is pressed.



Set the **VCR/TV** switch to **VCR**.

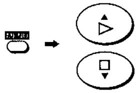
To Check the Settings for Auto Setup:

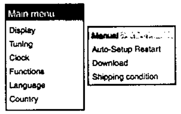
Use the following procedure to check that the settings for Auto Setup are set correctly.

Operations

1 Press **MENU** and select **Tuning**.

On Screen Display

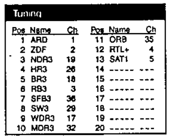




Main menu
Display
Tuning
Clock
Functions
Language
Country

Manual
Auto-Setup Restart
Download
Shipping condition

2 Select **Manual**.



Tuning

Pos	Name	Ch	Pos	Name	Ch
1	ARD	1	11	ORB	35
2	ZDF	2	12	RTL+	4
3	NDR3	19	13	SAT1	5
4	HR3	26	14	-----	---
5	BR3	18	15	-----	---
6	RB3	3	16	-----	---
7	SFB3	36	17	-----	---
8	SW3	29	18	-----	---
9	WDR3	17	19	-----	---
10	MDR3	32	20	-----	---

3 Looking at the On Screen Display, check that the settings for Auto Setup are set correctly.
If the desired TV stations have all been displayed and are set in the correct order, Auto Setup is completed.
If the TV stations have not been correctly entered and set, perform the manual setting procedure on page 39.
Press **EXIT** to exit the On Screen Display.

Note:
Manual tuning is required when there is a ∗ mark at the beginning of the station name display, even if the station name is displayed. See page 40.

Connections and Settings Using a 21-Pin Scart Cable

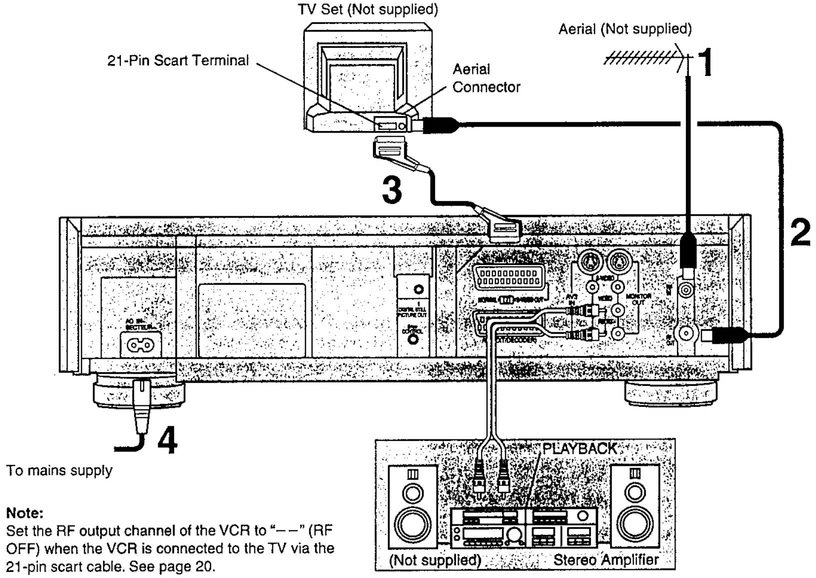
1 Connections

The VCR sends signals to the TV via a 21-pin scart cable (supplied).

When connecting the VCR to a TV with the "Q Link", "DATA LOGIC", "NEXTVIEWLINK", "Easy Link", "Megalogic", "SMARTLINK", or other logo, the fully-wired 21-pin scart cable should be used in Step **3.** If this cable is not used, the "Preset Download" and "Direct TV REC" functions will not operate. (See pages 25 and 30.)

Make the connections as shown in the figure below.
After making these connections, one of several setting methods is performed.

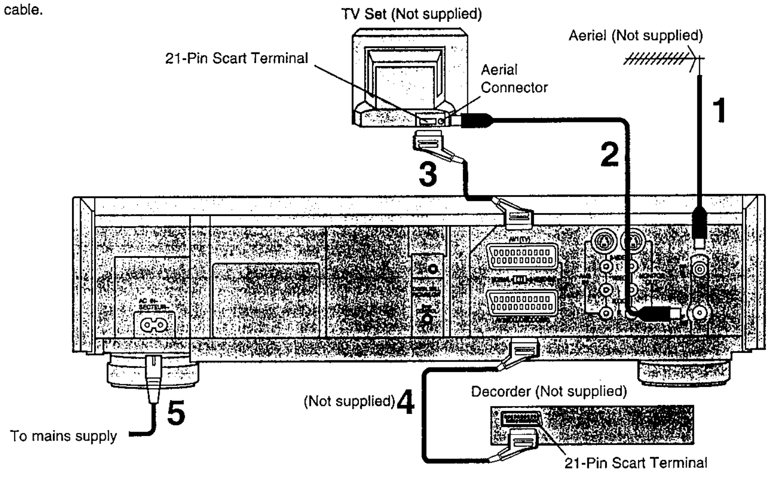
Type of TV set that you have		Setting method
TV with the "Q Link" or "DATA LOGIC" logo	TV has not been preset.	Turn on the TV first. Perform Tuner setup as described in the TV operating Instructions. Download from TV starts and ends automatically.
	TV has already been preset.	Go to page 25.
TV with the "NEXTVIEWLINK", "Easy Link", "Megalogic", "SMARTLINK", or other logo	TV has not been preset.	Turn on the TV first. Perform Tuner setup as described in the TV operating Instructions. Download from TV starts and ends automatically. When Preset Download has finished, select your country (see page 46), and then restart Download (see page 41).
	TV has already been preset.	Go to page 25.
Cases other than the one above		Go to page 23.



Note:
Set the RF output channel of the VCR to "– –" (RF OFF) when the VCR is connected to the TV via the 21-pin scart cable. See page 20.

Connection to a Decoder

In addition to the connections described on the previous page, connect the AV2 socket to the decoder using a 21-pin scart cable.



Notes:
- If the TV set is provided with an RGB-compatible connector, connect the 21-pin AV cable from the VCR to this connector. Use the fully-wired 21-pin scart cable for connecting the TV set and VCR and for connecting the VCR and decoder.
- Set the RF output channel of the VCR to "– –" (RF OFF) when the VCR is connected to the TV via the 21-pin scart cable. See page 20.
- **AV2** must first be set to **DECODER** when the decoder is connected to the AV2 socket. (See page 45.)

AV LINK
With this button, the connected colour TV set can be switched from TV mode to VCR mode (and vice versa) when it is connected by means of 21-pin scart cable. This makes a variety of functions possible, such as simultaneous recording and viewing when a Pay TV decoder or a satellite receiver has been connected.

VCR mode (VCR indicator lights up):
To enjoy sound and pictures from the VCR.
- When **MENU, SET UP** or **EDIT MENU** is pressed and the OSD (On Screen Display) screen is displayed, the unit also automatically switches to VCR mode.
  However, if the unit is originally in TV mode, the VCR indicator is not displayed.
- The unit also automatically switches to VCR mode when playback is started. However, the unit cannot be returned to TV mode during playback.

TV mode (VCR indicator goes off):
- To watch another programme on the TV while recording on the VCR.
- Select the programme to be watched using the TV set's tuner.
- The sound and pictures of a different channel are received by the VCR.

	VCR		TV set
Power On	VCR mode TV mode	⬍ ⬍	AV input selected Input from TV set's tuner*
Power Off	—		Input from TV set's tuner

*When the VCR is set to the TV mode and the Pay TV channel is selected, the signals will still be scrambled even when Pay TV is selected by the TV set's tuner. In this case, either set the VCR to the VCR mode or switch the TV set's input signals to AV input.

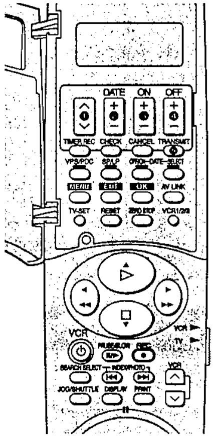
2 Settings

Auto Setup

This setting is used when the VCR is not connected to a TV with the "Q Link", "DATA LOGIC", "NEXTVIEWLINK", "Easy Link", "Megalogic", "SMARTLINK", or other logo using a fully-wired 21-pin scart cable.
The VCR automatically searches for TV stations and sets the clock. (This is known as Auto Setup.)

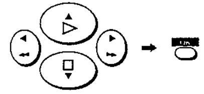
Preparation

Turn on the TV and VCR.

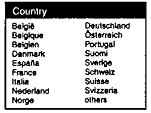

DATE
ON
OFF
TIMER REC
CHECK
CANCEL
TRANSMIT
VPS/PDC
SP/LP
OPEN/DATE-SELECT
MENU
EXIT
OK
AV LINK
TV-SET
RESET
ZERO STOP
VCR1/2/3
VCR
TV
PAUSE/SLOW
REC
SEARCH SELECT
INDEX/PHOTO
JOG/SHUTTLE
DISPLAY
PRINT

Set the **VCR/TV** switch to **VCR**.

The **Country** setting screen appears.
Select the desired country.

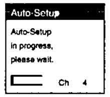


On Screen Display



België
Belgique
Belgien
Danmark
España
France
Italia
Nederland
Norge
Deutschland
Österreich
Portugal
Suomi
Sverige
Schweiz
Suisse
Svizzeria
others

- Auto Setup (Auto tuning and Auto clock setting) starts automatically.



Auto-Setup
in progress,
please wait.
Ch 4

To Reset Auto Setup:
Press **EXIT**, then disconnect and reconnect the power source. The **Country** setting screen will appear on the screen.

Notes:

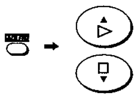
- The Auto Setup searches for TV stations from VHF minimum to UHF maximum and stores the data for every programme position. The other programme positions are skipped.
- The Auto Setup takes five minutes or more to search for TV stations and set the clock.
- If VCR is not set correctly by Auto Setup, see Various Settings on pages 39-42.
- Auto clock setting will not work correctly if teletext information is not available. If the clock setting screen appears after auto tuning has been completed, set the clock manually.
  Refer to steps **3-5** on page 42.
- If you change the tuning details of the TV after Auto Setup has been performed on the VCR, the new information may be automatically downloaded to the VCR, and the input content of Auto Setup may be erased. If this happpens, repeat Auto Setup.

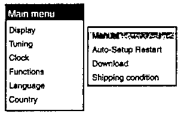
To Check the Settings for Auto Setup:

Use the following procedure to check that the settings for Auto Setup have been correctly made.

Operations

1 Press **MENU** and select **Tuning**.

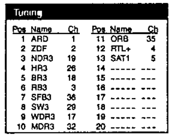




Display
Tuning
Clock
Functions
Language
Country

Manual
Auto-Setup Restart
Download
Shipping condition

2 Select **Manual**.

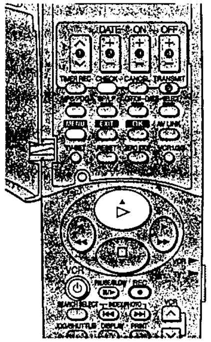


Pos	Name	Ch	Pos	Name	Ch
1	ARD	1	11	ORB	35
2	ZDF	2	12	RTL+	4
3	NDR3	19	13	SAT1	5
4	HR3	26	14	-----	---
5	BR3	18	15	-----	---
6	RB3	3	16	-----	---
7	SFB3	36	17	-----	---
8	SW3	29	18	-----	---
9	WDR3	17	19	-----	---
10	MDR3	32	20	-----	---

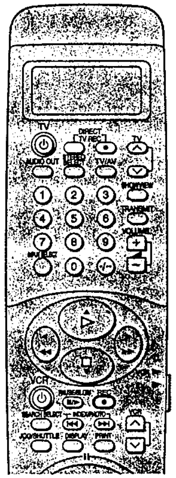
3 Looking at the On Screen Display, check that the settings for Auto Setup are set correctly.
If the desired TV stations have all been displayed and are set in the correct order, Auto Setup is completed.
If the TV stations have not been correctly entered and set, perform the manual setting procedure on page 39.
Press **EXIT** to exit the On Screen Display.

Note:
Manual tuning is required when there is a ∗ mark at the beginning of the station name display, even if the station name is displayed. See page 40.

The "Q Link" functions


DATE
ON
OFF
TIMER REC
CHECK
CANCEL
TRANSMIT
MENU
EXIT
OK
AV LINK
VCR
PAUSE/SLOW
REC
SEARCH SELECT
INDEX/PHOTO
JOG/SHUTTLE
DISPLAY
PRINT

Set the **VCR/TV** switch to **VCR**.


TV
DIRECT TV REC
AUDIO OUT
TV/AV
1
2
3
4
5
6
7
8
9
0
SHOWVIEW
VOLUME
INPUT SELECT
VCR
PAUSE/SLOW
REC
SEARCH SELECT
INDEX/PHOTO
JOG/SHUTTLE
DISPLAY
PRINT

When the VCR is connected to a TV with the "Q Link", "DATA LOGIC", "NEXTVIEWLINK", "Easy Link", "Megalogic", "SMARTLINK", or other logo using a fully-wired 21-pin scart cable, you can use the "Q Link" functions.

The following Q Link functions are available.

1 **Preset Download**
When the VCR is connected to the TV, the station list data will be copied from the TV to the VCR, and the TV channels will be preset on the VCR.
See page 25.

2 **Direct TV REC**
This function allows you to immediately record the programme you are watching on the TV at the moment by simply pressing **DIRECT TV REC.**
See page 30.

3 **TV/VCR Auto Power On**
(This function is only available when the VCR is connected to a TV with the "Q Link" or "DATA LOGIC" logo.)
Even if the TV or VCR is in the standby mode, the TV and VCR will automatically turn on when one of the buttons [▷ **(PLAY), CHECK** or **MENU**] is pressed.
- When a cassette with the opened record prevention tab is inserted into the VCR, the VCR starts up and automatically begins playback. The TV also turns on.

4 **VCR Auto Power Off**
(This function is only available when the VCR is connected to a TV with the "Q Link" or "DATA LOGIC" logo.)
Turning the TV off will also turn the VCR off.
However, this operation works only when the VCR has been set to Rewind or Stop mode, or there is no tape inside.
- If the Power Off command is received while the VCR is rewinding the tape, the VCR will not turn off until rewinding is completed.
- This operation does not work when settings are being mode. (Download, Auto Setup, Auto Clock Setting, Manual Search)

5 **TV On Screen Display Message**
(This function is only available when the VCR is connected to a TV with the "Q Link" or "DATA LOGIC" logo.)
With this function, VCR messages appear on the TV screen even in the TV mode.

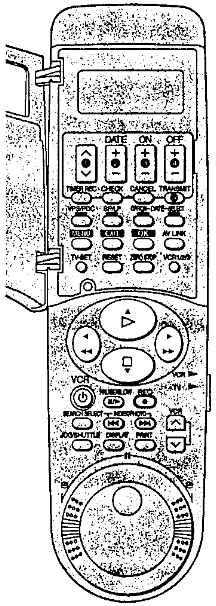
Message	Conditions when message appears
This programme has already started	Timer recording is starting.

Note:
Depending on the TV, the message may not appear correctly.

Preset Download

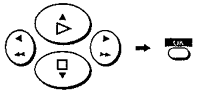
This setting is used when the VCR is connected to a TV with the "Q Link", "DATA LOGIC", "NEXTVIEWLINK", "Easy Link", "Megalogic", "SMARTLINK", or other logo using a fully-wired 21-pin scart cable.

When the VCR is connected to the TV, the station list data will be copied from the TV to the VCR, and the TV channels will be preset on the VCR.
This function is known as "Preset Download".

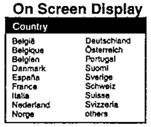


Set the **VCR/TV** switch to **VCR**.

Applicable to TVs with the "Easy Link", "Megalogic" and "SMARTLINK" logo:
The **Country** setting screen appears when the VCR is turned on after being connected to the TV using the fully-wired 21-pin scart cable.
Select the desired country.



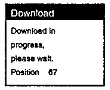
On Screen Display



Country	
België	Deutschland
Belgique	Österreich
Belgien	Portugal
Danmark	Suomi
España	Sverige
France	Schweiz
Italia	Suisse
Nederland	Svizzeria
Norge	others

- Next, the "Download" screen appears, and downloading begins immediately.

Applicable to TVs with "Q Link" and "DATA LOGIC":
If the VCR is connected to a TV with the "Q Link" or "DATA LOGIC" logo, the "Download" screen appears, and downloading begins immediately.



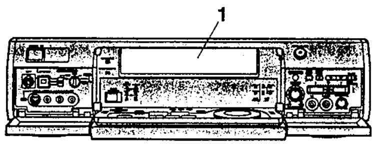
Download

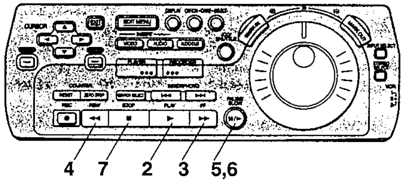
Download in
progress,
please wait.
Position 67

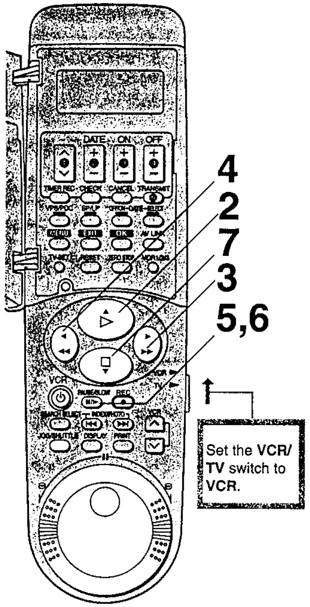
- When downloading from TV has finished, the programme of the station with the lowest channel number which can be tuned in is received automatically.

Note:
Download will only work when the VCR is connected to a TV with the "Q Link", "DATA LOGIC", "NEXTVIEWLINK", "Easy Link" "Megalogic", "SMARTLINK", or other logo using a fully-wired 21-pin scart cable.
When this condition is not met, Auto Setup will be executed. (See page 23.)

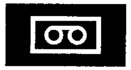
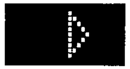
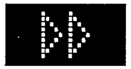
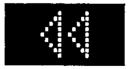
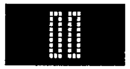
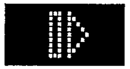
Playback





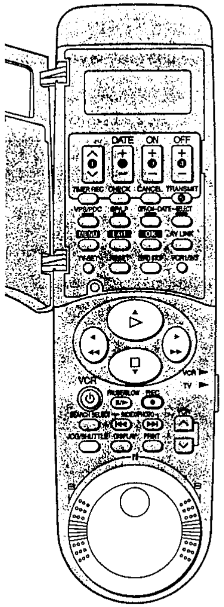


Set the **VCR/TV** switch to **VCR**.

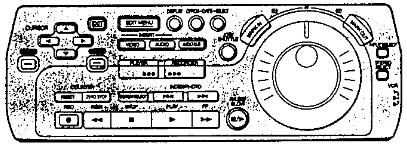
Operations	Display Symbols
1 Insert a recorded cassette tape.	
2 Press ▷ **(PLAY)** to start playback.	
3 Tap ▶▶ **(FAST FORWARD)** to search forward. • Press ▷ **(PLAY)** to change back to normal playback.	
4 Tap ◀◀ **(REWIND)** to search backward. • Press ▷ **(PLAY)** to change back to normal playback.	
5 Press **PAUSE/SLOW** to view a still picture. • Press ▷ **(PLAY)** or **PAUSE/SLOW** to continue normal playback.	
6 Keep **PAUSE/SLOW** pressed for 2 seconds or more to view a slow motion picture. • Press ▷ **(PLAY)** to continue normal playback.	
7 Press □ **(STOP)** to stop the picture.	

Note:
If you keep ▶▶ **(FAST FORWARD)** or ◀◀ **(REWIND)** pressed in step **3** or **4**, search playback is activated while the button is pressed, and operation returns to normal playback when the button is released.

Other Playback Functions



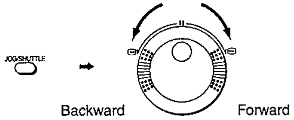
Set the **VCR/TV** switch to **VCR.**



To Change the Playback Speed

1 Press **JOG/SHUTTLE** on the remote controller or the editing controller.
- The button on the editing controller is lit.

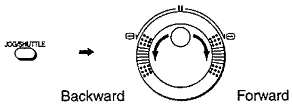
2 Rotate Shuttle Ring.



To Locate the Desired Picture Exactly

1 Press **JOG/SHUTTLE** on the remote controller or the editing controller.
- The button on the editing controller is lit.

2 Turn Jog dial.



To View the Video During Fast Forward or Rewind

Keep ▶▶ **(FAST FORWARD)** pressed during fast forward.
Keep ◀◀ **(REWIND)** pressed during rewind.

To Return to a Specified Scene

After playback, press **ZERO STOP** in the stop mode.
- The tape will be rewound or fast forwarded to 0:00.00 approximately.

Automatic Playback

When a cassette with the opened record prevention tab is inserted, the VCR starts playback automatically.

VCR-off Playback

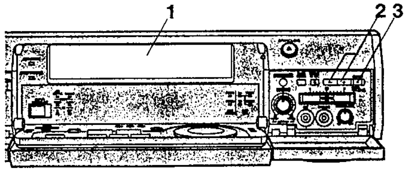
When the VCR is off, an inserted cassette can be played back by pressing ▷ **(PLAY).**

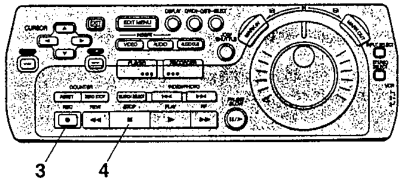
Automatic Rewinding

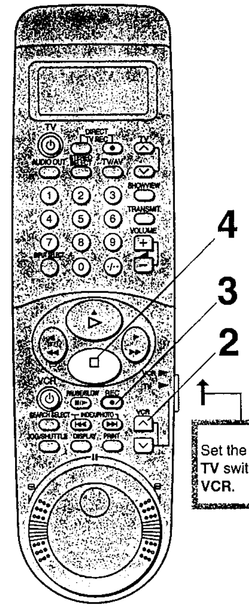
When the tape reaches the end during recording (except for timer recording) or playback, it will automatically be rewound to the beginning.
- During OTR, this function will not work.

Note:
Cue, review or slow playback will be automatically cancelled after 10 minutes, and still playback after 5 minutes.

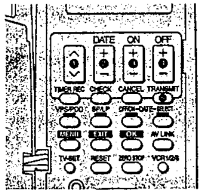
Manual Recording





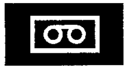


Set the VCR/ TV switch to VCR.



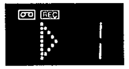
Operations **Display Symbols**

1 Insert a video cassette with the closed record prevention tab.
- If it has already been inserted, press **VCR ⏻ (POWER ⏻/I)** to turn the VCR on.



2 Select the TV station using the ∨ and ∧ buttons.
- It is also possible to select by pressing the **numeric buttons.**
Be sure that the **VCR/TV** switch is set to **VCR.**

3 Press **REC (REC/OTR)** to start recording.



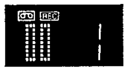
4 Press □ **(STOP)** to stop recording.

To Select the Desired Tape Speed

Press **SP/LP** before recording.

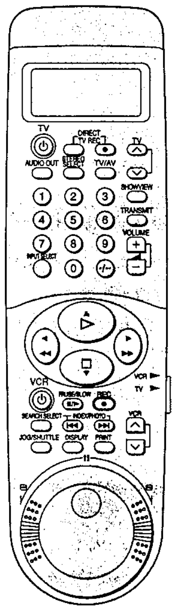
To Pause Recording

Press **PAUSE/SLOW** during recording.
Press again to continue recording.



To Record One TV Programme while Viewing Another Programme

After step 3, change to the TV channel of the programme you want to view.



Set the **VCR/TV** switch to **VCR.**

To Display the Remaining Tape Time

Press **DISPLAY** repeatedly until the Remaining Tape Time appears on the VCR display.

→Clock → Time Code → Remaining Tape Time → Counter ┐

- The remaining tape time may not be displayed correctly for some tapes.

Recording Stereo and Bilingual Programmes

1 Recording is automatically made in the stereo and bilingual mode. This prevents errors in the selection of the dubbed or the original language.

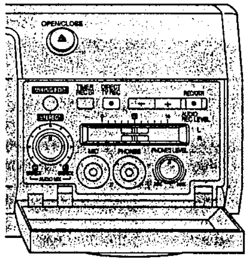
2 During playback press **AUDIO OUT** to select the desired sound mode. See page 8.

Notes:
- When a video cassette with the opened record prevention tab is inserted, the "▣" indication will flash to indicate that recording is not possible.
- The recording pause mode will be automatically cancelled after 5 minutes and return to the stop mode.

The NICAM Broadcast System

NV-DV10000 is also equipped with the NICAM sound system.
NICAM is a 2 Channel sound broadcast system that provides either a high quality stereo sound track or 2 independent MONO sound tracks, M1 and M2.
NICAM programmes are always accompanied by standard sound broadcasts and you can select the desired sound with **AUDIO OUT** during playback.
- To record the regular sound (ordinary normal sound) on the FM audio tracks when a Stereo, Bilingual or NICAM programme is received, select **Mono ON** during manual tuning procedure. See page 40.

Important Note for the NICAM System
When NV-DV10000 is switched on, the tuner will automatically switch to a NICAM broadcast, if NICAM is being transmitted. During test transmissions, it is possible that the sound received doesn't correspond to the picture being viewed. In order to receive a synchronized sound and picture, select **Mono ON** setting. This will only apply until NICAM transmissions are fully operational.
Even if the sound track is in MONO, the stereo indicator will appear.



One-Touch Recording (OTR)

This function only works using REC/OTR on the VCR main unit.

After you start recording, you can use this function to stop recording automatically when the programme is finished (useful for recording when you are out). Simply set the recording duration by pressing **REC/OTR** repeatedly.
The duration indicated on the VCR display changes by pressing **REC/OTR** as follows:

→Counter display (normal recording mode) → 30 (min.) → 60 (min.) → 120 (min.) → 180 (min.) → 240 (min.) ┐

Preparation

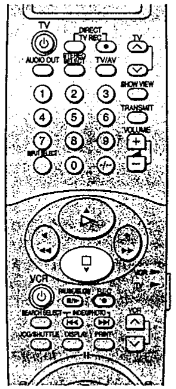
Insert a video cassette with the closed record prevention tab.

Operations

1 Set the video source which is to be recorded, and start recording.

2 Press **REC/OTR** repeatedly to select the desired recording duration.
  - The VCR will automatically switch off when OTR is completed. To turn the VCR on again, press **VCR ⏻ (POWER ⏻/I).**

Notes:
- The OTR function works during normal recording or Direct TV REC.
- When the tape reaches the end during OTR, the VCR will turn itself off.
- To stop OTR at any time, press □ **(STOP)** or **VCR ⏻ (POWER ⏻/I).**



Direct TV REC

This function allows you to immediately record the programme you are watching on the TV at the moment by simply pressing **DIRECT TV REC**.
However, this function works only when this VCR is connected to a TV with the "Q Link", "DATA LOGIC", "NEXTVIEWLINK", "Easy Link", "Megalogic", "SMARTLINK", or other logo using the fully-wired 21-pin scart cable.

Preparation

Insert a video cassette with the closed record prevention tab.

Operation

When you are watching TV and you want to record the programme immediately, press **DIRECT TV REC** on the VCR main unit or remote controller.
The recording will start.
- It is not necessary to adjust the programme position of your VCR to the TV station that you are watching now.

Notes:
- Even if the programme positions are not the same, the programme position of the VCR switches to the same position of the TV. When recording is finished, the programme position of the VCR returns to the previous position.
- Do not press **AV LINK** during Direct TV REC. Recording may not be performed normally.
- In some cases, it may not be possible to change the TV channel during Direct TV REC.
- Check beforehand whether the tape may be used for recording.

Timer Recording

Timer Recording

This function allows you to record programmes automatically.
There are three ways to record programmes: ShowView programming, where you enter the ShowView number, and On Screen Display recording, where you enter the recording information yourself while viewing the On Screen Display.

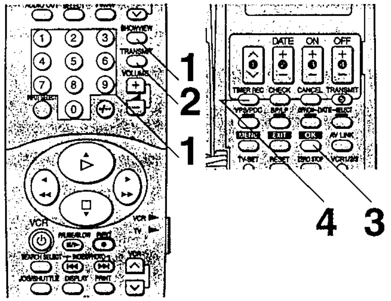
ShowView Programming

Programming is now easier than ever: simply enter the ShowView number provided in the programme schedule carried by newspapers and magazines.
ShowView numbers are numbers which are assigned to each programme listed in the TV programme schedule carried in newspapers and TV guides. When these numbers are entered and **TRANSMIT** is pressed, the numbers are converted to the actual programming.

ShowView is a trademark applied for by Gemstar Development Corporation. The ShowView system is manufactured under licence from Gemstar Development Corporation.

Preparations

- insert a video cassette with the closed record prevention tab.
- Confirm that the TV is on and the VCR viewing channel is selected.



Follow the on screen operation guide.

Operations

1 Press **SHOWVIEW** and then enter a ShowView number using the **numeric buttons**.

Example: 920126

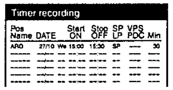
Display Symbols

VCR1
920126

- If you have entered the wrong ShowView number, repeat step **1** with the correct ShowView number.

2 Press **TRANSMIT**.

TRANSMIT

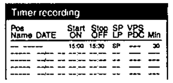


Timer recording

Pos Name	DATE		Start ON	Stop OFF	SP LP	VPS PDC	Min
ARD	27/10	We	15:00	15:30	SP	----	30
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----

- The Programming data that you entered also appears on the VCR display.
- To extend the ending time or to make any corrections, use ▲ ▼ ◀ ▶ or **VPS/PDC**.
- See page 35 for VPS/PDC recording.

If "– –" appears in the programme position:
Use ▲ or ▼ to select the programme position of your VCR which receives the required TV station.



Timer recording

Pos Name	DATE		Start ON	Stop OFF	SP LP	VPS PDC	Min
------			15:00	15:30	SP	----	30
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----

- A message appears on the On Screen Display for the first few seconds.
- ◫ flashes as a warning on the VCR display.
- Once programming is performed after the programme position has been selected here, the guide channel will be automatically stored so that the correct position will appear when the ShowView code for this station is next entered.

3 Press **OK** for confirmation.

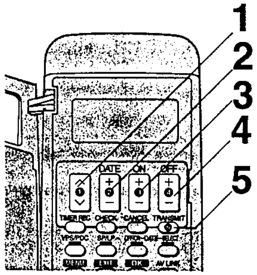
4 Press **TIMER REC** to activate timer recording.

- Check that ◫ is lit on the VCR display.
  If it is flashing, check the timer recording details again. (See page 34.)

Notes:

- To select the desired tape speed, press **SP/LP** in step **1**.
- To cancel standby mode, press **TIMER REC**.
- When the ShowView number is used for programming, the recording time may be slightly longer than the actual programme time.
- When programming the recording of two or more programmes, repeat steps **1-3**.
- The procedures for checking, modifying and cancelling a timer programme are the same as on page 34.

Using the Remote Controller



Preparations

- Insert a video cassette with the closed record prevention tab.
- Confirm that the TV is on and the VCR viewing channel is selected.

For Example:

Programme position (channel):	2
Date:	27th October
Starting time:	20:00
Ending time:	21:00
(Present date:16th October)	

Operations

1 Set the programme position (channel) to "2".

Display Symbols

2 Set the date to "27/10".

DATE

3 Set the starting time to "20:00".

ON

- When it is kept pressed, the indication changes in 30-minute intervals.

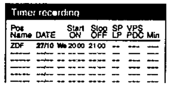
4 Set the ending time to "21:00".

OFF

VCR1
ON
OFF
2 27 20:00 21:00

5 Press **TRANSMIT**.

TRANSMIT



Timer recording

Pos Name	DATE		Start ON	Stop OFF	SP LP	VPS PDC	Min
ZDF	27/10	We	20:00	21:00	--	----	----
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----
------	--/--	--	--:--	--:--	--	----	----

- To release from the standby mode, press **TIMER REC**.
- See page 35 for VPS/PDC recording.
- To make a change to what has been programmed (for instance, to change VPS/PDC to **ON** or **OFF**), follow the procedure for On Screen Display Programming. (See page 33.)

Note:
To select the desired tape speed, press **SP/LP** in any of steps **2-4**.

Weekly Timer Recording

In step **2**, select the desired day by pressing **DATE (–)**.
(SU=Sunday, MO=Monday, TU=Tuesday, WE=Wednesday, TH=Thursday, FR=Friday, SA=Saturday)

Daily Timer Recording

For this timer function, several groups of days can be selected.

Ⓐ Daily recording from Monday to Friday (MO-FR)
Ⓑ Daily recording from Monday to Saturday (MO-SA)
Ⓒ Daily recording from Sunday to Saturday (SU-SA)

In step **2**, select the desired days by pressing **DATE (–)**.

Timer Recording from External Signal Source

If Timer Recording is performed by a unit connected to AV1 (TV), AV2(EXT/DECODER) socket or AV3 (Audio/Video/S-Video input sockets), select A1, A2 or A3 for the programme position.

A1:	Through the AV1 (TV) socket.
A2:	Through the AV2 (EXT/DECODER) socket.
A3:	Through the AV3 (AUDIO IN/VIDEO IN/S-VIDEO IN) sockets on front panel.

- Timer Recording is not possible if DV IN is set to the programme position.

Using On Screen Display

Up to 8 timer programmes can be recorded up to one month in advance by setting the timer, including weekly and daily programmes.

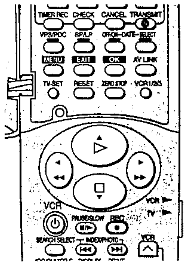
Preparations

- Insert a video cassette with the closed record prevention tab.
- Confirm that the TV is on and the VCR viewing channel is selected.

For Example:

Programme position (channel):	2
Date:	27th October
Starting time:	20:00
Ending time:	21:00

(Present date:16th October)


TIMER REC
CHECK
CANCEL
TRANSMIT
VPS/PDC
SP/LP
OFF/DATE
MENU
EXIT
OK
AV LINK
TV/SET
RESET
ZERO/FF
VCR

Set the **VCR/TV** switch to **VCR.**

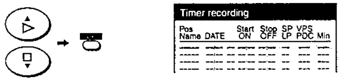
Follow the on screen operation guide.

Operations

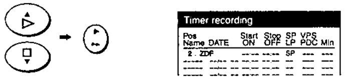
1 Press **CHECK.**

2 Select the unoccupied position, and then press **OK.**

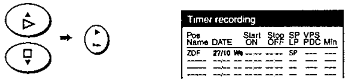
On Screen Display


Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min

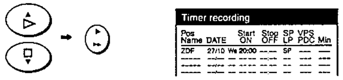
3 Set the programme position (channel) to "2".


Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
2 ZDF
SP

4 Set the date to "27/10".

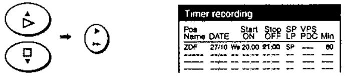

Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
ZDF
27/10 We
SP

5 Set the starting time to "20:00".

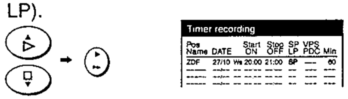

Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
ZDF
27/10 We
20:00
SP

- When it is kept pressed, the indication changes in 30-minute intervals.

6 Set the ending time to "21:00".

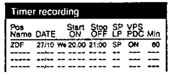

Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
ZDF
27/10 We
20:00
21:00
SP
60

7 Select the desired Tape speed (SP/LP).


Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
ZDF
27/10 We
20:00
21:00
SP
60

8 Set **VPS/PDC** to **ON** or **OFF** (– – –).

- See page 35 for VPS/PDC recording.

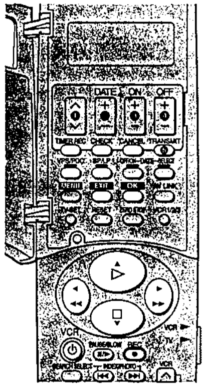

Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
ZDF
27/10 We
20.00
21:00
SP
ON
60

9 Press **OK** for confirmation.

10 Press **TIMER REC** to activate timer recording.

- When the On Screen Display for programming timer recording turns off, the recording information is automatically sorted in the order of recording start times.
- Check that ⊡ is lit on the VCR display.
  If it is flashing, check the timer recording details again. (See page 34.)

Note:
To cancel from the standby mode, press **TIMER REC.**


DATE
ON
OFF
TIMER REC
CHECK
CANCEL
TRANSMIT
VPS/PDC
SP/LP
MENU
EXIT
OK
AV LINK
TV/SET
RESET
VCR

Set the **VCR/TV** switch to **VCR.**

Weekly Timer Recording

In step **4**, select the desired day by pressing ▼.
(Su=Sunday, Mo=Monday, Tu=Tuesday, We=Wednesday, Th=Thursday, Fr=Friday, Sa=Saturday)

Daily Timer Recording

For this timer function, several groups of days can be selected.

Ⓐ Daily recording from Monday to Friday (Mo-Fr)
Ⓑ Daily recording from Monday to Saturday (Mo-Sa)
Ⓒ Daily recording from Sunday to Saturday (Su-Sa)

In step **4**, select the desired days by pressing ▼.

Timer Recording from External Signal Source

If Timer Recording is performed by a unit connected to AV1 (TV), AV2(EXT/DECODER) socket or AV3 (Audio/Video/S-Video input sockets), select A1, A2 or A3 for the programme position.

A1: Through the AV1 (TV) socket.
A2: Through the AV2 (EXT/DECODER) socket.
A3: Through the AV3 (AUDIO IN/VIDEO IN/S-VIDEO IN) sockets on front panel.

- It is also possible to select by pressing **INPUT SELECT.**
- Timer Recording is not possible if DV IN is set to the programme position.

Setting other Programmes

Repeat steps **2-9** on page 33.

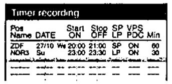
Checking a Timer Programme

Confirm that the TV is on and the VCR viewing channel is selected.

1 Press **CHECK.**
  - The On Screen Display may be distorted in the VPS/PDC recording standby mode.

2 Press **CHECK** or **EXIT** to exit the On Screen Display.

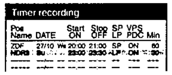
On Screen Display


Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
ZDF
27/10 We
20:00
21:00
SP
ON
60
NDR3
Su
23:00
23:30
LP
ON
30

Modifying a Timer Programme

- During timer recording, this operation will not work.
- Confirm that the TV is on and the VCR viewing channel is selected.

1 Press **CHECK.**


Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
ZDF
27/10 We
20:00
21:00
SP
ON
60
NDR3
Su
23:00
23:30
LP
ON
30

2 Select the desired timer programme.

3 Modify the programme, following the method described in steps **2-8** on page 33.

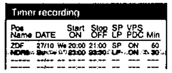
4 Press **OK.**

5 Press **CHECK** or **EXIT** to exit the On Screen Display.

Cancelling a Timer Programme

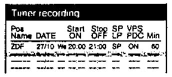
- During timer recording, this operation will not work.
- Confirm that the TV is on and the VCR viewing channel is selected.

1 Press **CHECK.**


Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
ZDF
27/10 We
20:00
21:00
SP
ON
60
NDR3
Su
23:00
23:30
LP
ON
30

2 Select the desired timer programme.

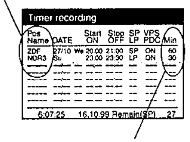
3 Press **CANCEL.**


Timer recording
Pos Name
DATE
Start ON
Stop OFF
SP LP
VPS PDC
Min
ZDF
27/10 We
20:00
21:00
SP
ON
60

4 Press **CHECK** or **EXIT** to exit the On Screen Display.

Notes:

- If timer recording does not reach the end (due to insufficient tape or cancellation by the user), the programmed timer recording data will be erased from the memory by 4 a.m. the next day.
- Either the position number or the station name is displayed here.



Timer recording

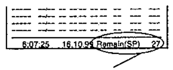
Pos Name	DATE		Start ON	Stop OFF	SP LP	VPS PDC	Min
ZDF	27/10	We	20:00	21:00	SP	ON	60
NDR3	Su		23:00	23:30	LP	ON	30

6:07:25 16.10.99 Remain(SP) 27

- For daily and weekly timer recording, the recording time for only one recording session is displayed.

Checking the Remaining Tape Time

- This displays the remaining time for the inserted tape.



6:07:25 16.10.99 Remain(SP) 27

Remainig time indicator

- This indicator is not displayed unless the remaining tape time has already been indicated on the VCR display. Refer to page 29.

VPS (Video Programme System)/PDC (Programme Delivery Control)

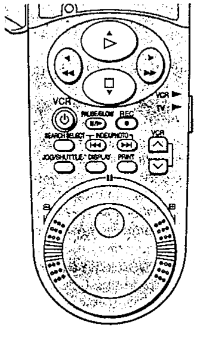
The Video Programme System (VPS) or the Programme Delivery Control (PDC) is a very convenient system which assures that the TV programmes you have programmed for timer recording will be recorded exactly from beginning to end, even if the actual broadcasting time differs from the scheduled time due to delayed start or extension of the programme duration. Also, if a programme is interrupted and, for example, some special news is inserted, the recording will also be interrupted automatically and resumed when the programme continues.
Depending on the signals sent from the broadcasting stations, the VPS/PDC system may not operate properly even when VPS/PDC has been set to ON. Please check with the broadcasters in your area for details.

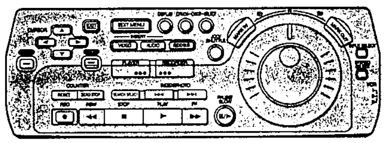
- In the case of VPS/PDC recording, use the correct time (VPS/PDC time) for recording the TV programmes.
  Set VPS/PDC to OFF when the recording time is not the correct time (VPS/PDC time).
  VPS/PDC recording is not performed when the time (VPS/PDC time) is incorrect, even if only by one minute.
  To find out the correct time (VPS/PDC time), consult a newspaper or magazine, or other source.
- If the actual broadcasting times of timer recordings overlap (regardless of whether they are VPS/PDC controlled), the recording that starts first always has priority, and the recording of the later beginning programme will start only after the first timer recording has finished.
- When the VPS/PDC signal drops out because the broadcast signal is weak, or when a broadcasting station does not transmit a regular VPS/PDC signal, the timer recording will be performed in the normal mode (without VPS/PDC) even if it was programmed for VPS/PDC.
  In this case, even if the timer recording is performed, whatever has been programmed will not be cancelled at that particular time but at 4 a.m. on the following day.
- The start times of scheduled programmes listed in the newspaper or magazine may be changed at a later date. Set VPS/PDC to OFF when programming a programme whose start time has been subsequently changed.
  Particular care must be taken in this respect with ShowView programming since VPS/PDC is automatically set to ON in some countries.
- If a programme listed in a newspaper or magazine has two ShowView numbers, use the ShowView number for VPS/PDC if you wish to proceed with VPS/PDC recording using ShowView programming.
- The default settings for VPS/PDC differ depending on the country concerned. Refer to the table below.

Programming method / Selected Country	ShowView programming	Changes in ShowView program-ming start time	Non-ShowView program-ming
France, Belgium, Netherlands, Sweden, Denmark, Finland, Norway	ON	OFF	OFF
Germany, Switzerland, Austria, other countries	ON	ON	ON
Italy, Spain, Portugal	OFF	OFF	OFF

- "– – –" appears for the VPS/PDC item at the outset if the broadcasting station is not transmitting VPS/PDC signals.

Search Functions



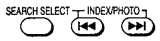


Index Search System

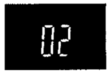
It is easy to find the beginning of each recording because a special index signal is recorded at the start of each recorded segment on the tape.

For example:
Searching for the 2nd recorded segment in the forward direction.

1 Press **SEARCH SELECT** so that "– –" appears on the VCR display.
(This operation is performed while the VCR is in the stop mode or normal playback mode.)



Display Symbols



2 Press **INDEX/PHOTO ►►I** twice.
- Normal playback now commences.

To stop the operation at any time
Press □ **(STOP)**.

- After finding the specific recorded segment, playback starts automatically.
- For the reverse direction, press **INDEX/PHOTO I◄◄**.
- Up to 20 index signals can be searched for in either direction.
- When the opposite **INDEX/PHOTO** is pressed, the number shall be decreased until 1 is reached.
- The figure on the display is reduced by 1 each time an index signal is located.
- The INDEX search function can only work correctly if the index signals are spaced at least 5 minutes apart.
- Repeat the procedure if the index signal for the specified number is not found.

Recording Index Signals
Index signals are recorded in the following cases.

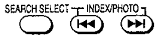
- When a recording is started by pressing **REC (REC/OTR)**.
- When timer recording is activated.
- When **REC** on the remote controller or the editing controller is pressed during recording.

Photoshot Index Search System

Photo shot index signals are automatically recorded when a Panasonic Digital Video Camera is used for photo shot shooting. Photo shot images are searched using these signals, and when such an image is located, the image is played back as a still picture.

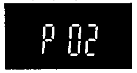
For example:
Searching for the 2nd photo shot image in the forward direction.

1 Press **SEARCH SELECT** so that "P – –" appears on the VCR display.



2 Press **INDEX/PHOTO ►►I** twice.
- The image to be viewed will be found.

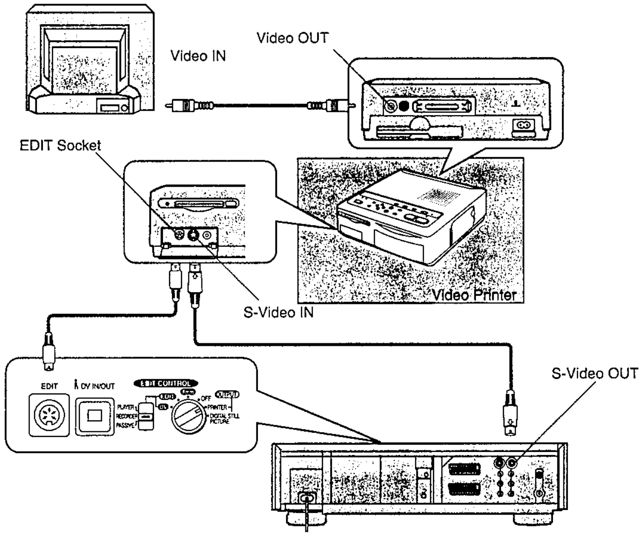
Display Symbols



- For the reverse direction, press **INDEX/PHOTO I◄◄**.
- Any of up to 20 images ahead on the tape can be designated.
- It may not be possible to search for a particular image properly if photo shot images have been recorded continuously.
- At every press of the corresponding button, the tape is fast-forwarded or rewound to the next still picture recorded in the Photoshot Mode.
  After reaching the next still picture, the still picture is played back continually together with the sound (only for approx. 4 seconds).

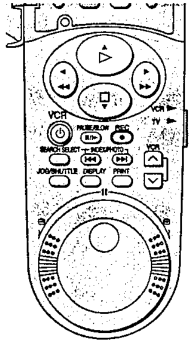
Using the VCR with a Video Printer

Still pictures can easily be printed out when the VCR is connected to a Panasonic video printer equipped with an EDIT socket.


Video OUT
Video IN
EDIT Socket
Video Printer
S-Video IN
S-Video OUT
EDIT
DV IN/OUT
EDIT CONTROL
OFF
PLAYER
RECORDER
PASSIVE
PRINTER
DIGITAL STILL PICTURE

Preparation

- Connect a video printer to this VCR as shown.


VCR
TV
PAUSE/SLOW
REC
SEARCH SELECT
INDEX/PHOTO
JOG/SHUTTLE
DISPLAY
PRINT

Video Printer:

1 Turn the Video Printer on.
2 Make the necessary settings on the Video Printer according to the input signal.

VCR:

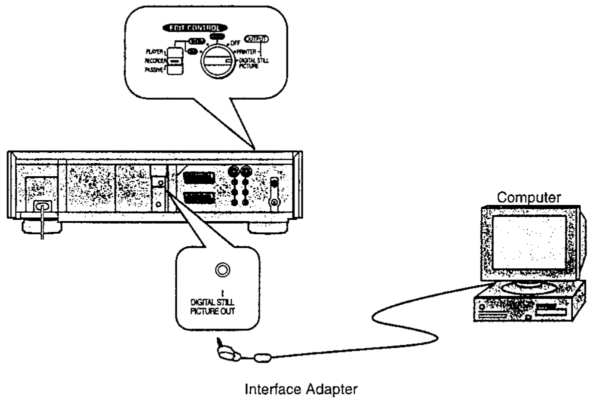
3 Turn the VCR on.
4 Set **EDIT CONTROL** to **PRINTER.**
5 Press ▷ **(PLAY).**
6 Search for the picture from which you would like to print, and then press **PAUSE/SLOW.**
7 Press **PRINT.**

Notes:

- Read the operating Instructions of the Video Printer.
- The OSD and DATE/TIME display are also printed out. If a picture without these displays is required, proceed as follows.
  - Set OSD on the VCR's Main menu to OFF.
  - Press **DATE-OFF/ON** on the remote controller or editing controller.
- Printing cannot be stopped at any point in time until it is completed.
- For printing, screens cannot be divided and the zoom function cannot be used.

Using the VCR with a Computer

The Personal Computer Connection Kit VW-DTA1E (Optional) for Digital Video Equipment makes it possible to connect the VCR to a computer and transmit still video images to it.


EDIT CONTROL
OFF
PLAYER
RECORDER
PASSIVE
PRINTER
DIGITAL STILL PICTURE
Computer
DIGITAL STILL PICTURE OUT
Interface Adapter

Computer System Requirements

DV STUDIO can be installed in a PC/AT personal computer which can run Microsoft® Windows® 95.

Compatible machines:	Personal computer with 80486DX4 or higher CPU(Pentium™ or higher recommended)
Graphic card:	True Color (approx.16.7million colours) recommended (operation also possible even with 256 colours)
Installed memory:	16 MB or more (32 MB or more recommended)
Free hard disk space:	At least 10 MB
Disk drive:	CD-ROM drive
Serial port:	RS-232C (D-Sub 9pin)
Other requirements:	Mouse

To connect the VCR to the computer, use the special Interface Adaptor contained in the Personal Computer Connection Kit.

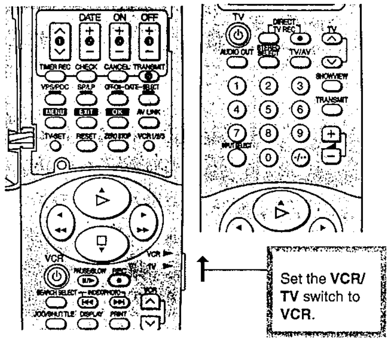
- Pictures that you intend to import into a computer application should be recorded in the SP Mode.
- When recording, take care that the Time code is uninterrupted from the beginning of the tape.
- Windows® 95 is a trademark of Microsoft Corporation U.S.A.
- Pentium™ is a trademark of Intel Corporation.
- All other company and product names in the operating instructions are trademarks of their respective corporations.

Storing TV Stations into Your VCR

The VCR is fitted with its own tuner (just like a normal TV set) and can be pre-set to receive up to 99 TV broadcast stations.
If VCR is not correctly tuned by Auto Setup, follow the procedure below.

Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.


DATE
ON
OFF
TIMER REC
CHECK
CANCEL
TRANSMIT
VPS/PDC
SP/LP
DATE-OFF/ON
MENU
EXIT
OK
AV LINK
TV
DIRECT TV REC
AUDIO OUT
TV/AV
SHOWVIEW
VCR
VCR/TV

Set the VCR/ TV switch to VCR.

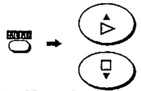
Manual Tuning Procedure

Follow the on screen operation guide.

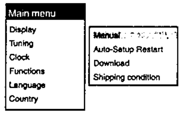
When deleting stations, adding "blank" positions and changing (moving) the programme position:

These indications do not appear on the screen after performing Preset Download (Download).

1 Press **MENU** and select **Tuning**.

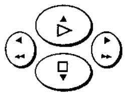


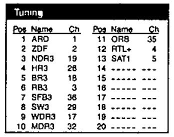
On Screen Display


Main menu
Display
Tuning
Clock
Functions
Language
Country
Manual
Auto-Setup Restart
Download
Shipping condition

2 Select **Manual**.

3 Select the desired programme position.

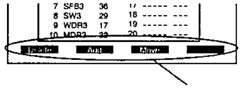




Tuning

Pos	Name	Ch	Pos	Name	Ch
1	ARD	1	11	ORB	35
2	ZDF	2	12	RTL+	4
3	NDR3	19	13	SAT1	5
4	HR3	26	14	-----	---
5	BR3	18	15	-----	---
6	RB3	3	16	-----	---
7	SFB3	36	17	-----	---
8	SW3	29	18	-----	---
9	WDR3	17	19	-----	---
10	MDR3	32	20	-----	---

4 Follow the steps indicated below.


7 SFB3 36
8 SW3 29
9 WDR3 17
10 MDR3 32
17
18
19
20
Delete
Add
Move

Delete: Press **VPS/PDC** (red) to delete the station.
Add: Press **SP/LP** (green) to add a blank position
Move: Press **DATE-OFF/ON** (yellow) to change (move) the programme position.

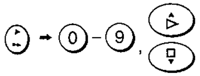
- The blue indication represents no function.
- These indications do not appear after performing Preset Download (Download).

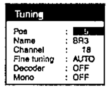
5 Press **OK**, and then press **EXIT**.

Changing the Programme Position (Pos)

Follow **1** to **3** in the first procedure.

4 Press **OK** and then select **Pos**.
- Be sure that the **VCR/TV** switch is set to **VCR**.




Tuning
Pos : 5
Name : BR3
Channel : 18
Fine tuning : AUTO
Decoder : OFF
Mono : OFF

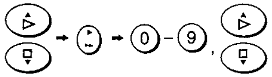
5 Press **OK** to confirm.

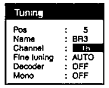
6 Press **MENU**, and then press **EXIT**.

Changing the Channel (Channel)

Follow **1** to **3** in the first procedure.

4 Press **OK** and then select **Channel**.
- Be sure that the **VCR/TV** switch is set to **VCR**.




Tuning
Pos : 5
Name : BR3
Channel : 18
Fine tuning : AUTO
Decoder : OFF
Mono : OFF

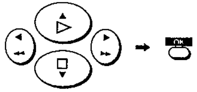
5 Press **OK** to confirm.

6 Press **MENU**, and then press **EXIT**.

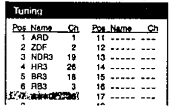
Changing the Station name (Name)

Follow steps **1** to **2** on page 39.

3 Select the station(s) name ＊□□□□.
Establish which channel you are viewing by checking your TV Guide/Newspaper.



On Screen Display

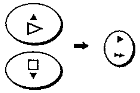


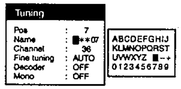
Tuning

Pos	Name	Ch	Pos	Name	Ch
1	ARD	1	11	-----	---
2	ZDF	2	12	-----	---
3	NDR3	19	13	-----	---
4	HR3	26	14	-----	---
5	BR3	18	15	-----	---
6	RB3	3	16	-----	---
[illegible]	[illegible]	[illegible]	17	-----	---

- "□" indicates the position number or station name.
This is the same as steps **4** and **5**.

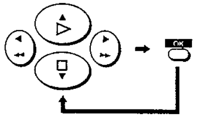
4 Select **Name**.




Tuning
Pos : 7
Name : ＊＊07
Channel : 36
Fine tuning : AUTO
Decoder : OFF
Mono : OFF
ABCDEFGHIJ
KLMNOPQRST
UVWXYZ --+
0123456789

Enter characters into all five ＊□□□□ positions from the table using the arrows and press **OK** after each character. Use a blank space if required. To enter a blank, select the area between Z and ＊.

- To cancel during entry, press **EXIT**.
The characters that have been entered will remain as the station name. Enter the correct station name as failure to do so may result in malfunctioning.



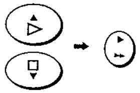
5 Press **MENU**. If any other station names are marked ＊□□□□, repeat steps **3-5**.

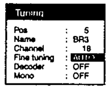
6 Press **EXIT**.

Fine Tuning

Follow steps **1** to **3** on page 39.

4 Press **OK** and then select **Fine tuning**.




Tuning
Pos : 5
Name : BR3
Channel : 18
Fine tuning : AUTO
Decoder : OFF
Mono : OFF

5 Press ▲ or ▼ to obtain the best tuning condition.
- To return the tuning to its former state **(AUTO)**, press ▶.

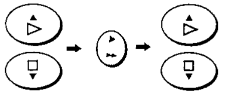
6 Press **OK** to confirm.

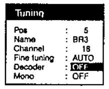
7 Press **MENU**, and then press **EXIT**.

Decoder

Follow steps **1** to **3** on page 39.

4 Press **OK** and then select **Decoder ON** or **Decoder OFF**.
ON: To preset pay TV stations.
OFF: To preset normal TV stations.




Tuning
Pos : 5
Name : BR3
Channel : 18
Fine tuning : AUTO
Decoder : OFF
Mono : OFF

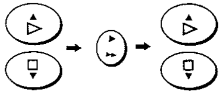
5 Press **OK** to confirm.

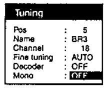
6 Press **MENU**, and then press **EXIT**.

Changing the Recording Sound (Mono)

Follow steps **1** to **3** on page 39.

4 Press **OK** and then select **Mono OFF**.
- Select **Mono ON** to record the normal sound during a stereo, bilingual or NICAM broadcast or if the stereo sound is distorted due to inferior reception conditions.




Tuning
Pos : 5
Name : BR3
Channel : 18
Fine tuning : AUTO
Decoder : OFF
Mono : OFF

5 Press **OK** to confirm.

6 Press **MENU**, and then press **EXIT**.

Notes:
- When channels have been set with Manual Tuning, the channel position will need to be entered the first time ShowView is used.
- If you change the tuning details of the TV after Manual Tuning has been performed on the VCR, the new information may be automatically downloaded to the VCR, and the input content of Manual Tuning may be erased. If this happens, perform VCR Auto Setup or Downloading and then repeat Manual Tuning.

Channel Plan

Channel Indication	TV Channel Germany/Italy	TV Channel Other Countries
2-12	*E2-E12	E2-E12
13-20	A-H (Only Italy)	–
21-69	21-69	21-69
74-78	S01-S05	S1-5
80-82	S1-S3	M1-M3
83-89	S4-S10	M4-M10
90-99	S11-S20	U1-U10
121-141 Hyperband	**S21-S41	S21-S41

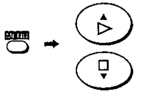
*In Italy: H1...(11), H2...(12)
**Only for 8 MHz channel raster

- This channel plan has been designed for continental Europe, and may differ according to the region.

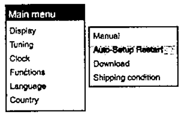
Auto-Setup Restart

When your address changes, follow the procedure below.

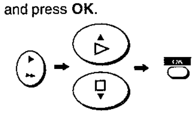
1 Press **MENU** and select **Tuning**.



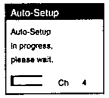
On Screen Display


Main menu
Display
Tuning
Clock
Functions
Language
Country
Manual
Auto-Setup Restart
Download
Shipping condition

2 Select **Auto-Setup Restart** and press **OK**.



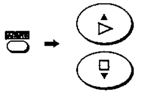
3 Press **OK** again.

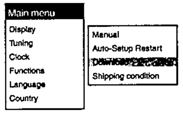

Auto-Setup
Auto-Setup
in progress,
please wait.
Ch 4

Download

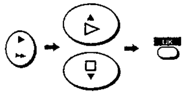
To perform downloading again, follow the procedure below in the stop mode.

1 Press **MENU** and select **Tuning**.

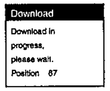



Main menu
Display
Tuning
Clock
Functions
Language
Country
Manual
Auto-Setup Restart
Download
Shipping condition

2 Select **Download** and press **OK**.



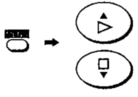
3 Press **OK** again.

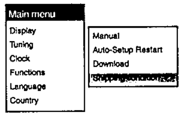

Download
Download in
progress,
please wait.
Position 67

Shipping Condition

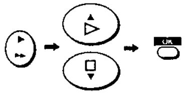
If you want to return the VCR to the factory-preset condition, follow the procedure below.

1 Press **MENU** and select **Tuning**.




Main menu
Display
Tuning
Clock
Functions
Language
Country
Manual
Auto-Setup Restart
Download
Shipping condition

2 Select **Shipping condition** and press **OK**.



3 Press **OK** twice.

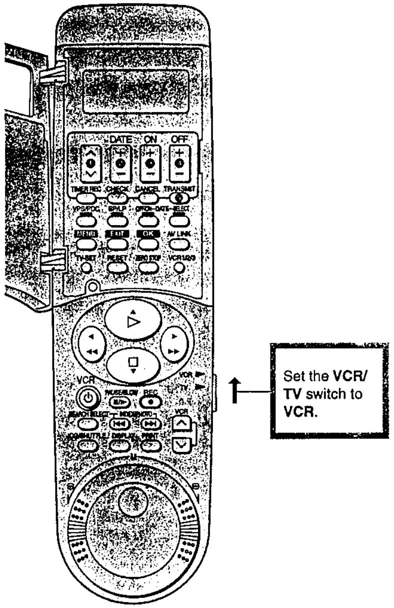
Note:
To re-tune the VCR, disconnect and then reconnect the mains lead.

Setting the Clock of Your VCR

The built-in clock is used to activate the timer for automatic recording and must be set to the correct time.
The built-in digital clock employs the 24-hour system.
If VCR is not correctly set by Auto Setup, follow the procedure below.
The clock backup system operates for at least 60 minutes in the event of power failure.

Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.


DATE
ON
OFF
TIMER REC
CHECK
CANCEL
TRANSMIT
VPS/PDC
SP/LP
OFF
MENU
EXIT
OK
AV LINK
TV-SET
RESET
VCR
REC

Set the **VCR/ TV** switch to **VCR**.

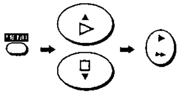
Manual Clock Setting

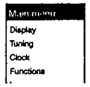
Follow the on screen operation guide.

Operations

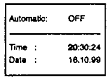
1 Press **MENU**, and then select **Clock**.

On Screen Display

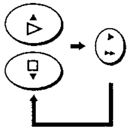


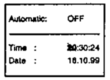

Main menu
Display
Tuning
Clock
Functions

2 Check that the **Automatic** setting is **OFF**, then press **OK**.
- If the setting is **ON** when you open the On Screen Display, do not turn it **OFF**, as then you will not be able to set the time automatically.


Automatic: OFF
Time : 20:30:24
Date : 16.10.99

3 Set **Time** and **Date**.
- Press ◀ to return to the previous item.




Automatic: OFF
Time : 20:30:24
Date : 16.10.99

4 Press **OK** to confirm.

5 Press **EXIT**.

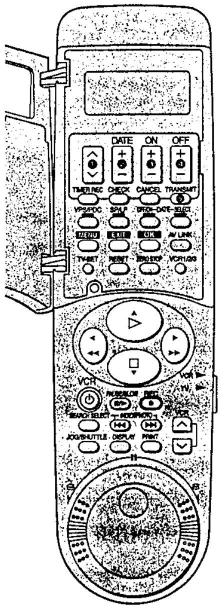
Note:
When the Automatic setting is **OFF**, the time may become incorrect. If this happens, reset it following the method described above.

Automatic Clock Setting

When "**Automatic**" is set to **ON**, the automatic time correcting function is activated every day.
The automatic time correcting function is only activated when the power is off.
This function is not activated during timer recording standby mode.

Note:
Even if "**Automatic**" is set to **ON**, if the time is incorrect, check first that the country has been selected correctly (see page 46), re-set "**Automatic**" to **ON** following step **2**, then always press **OK**.

Settings Using On Screen Display


DATE
ON
OFF
MENU
EXIT
OK
VCR

Set the **VCR/TV** switch to **VCR.**

The VCR indications shown on the TV screen are known as the On Screen Display (OSD).
This VCR allows many settings to be made at the OSD.

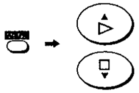
Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR and TV.

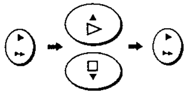
Display

Channel Guide

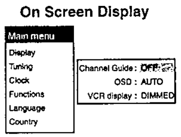
1 Press **MENU**, and then select **Display**.



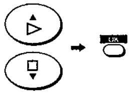
2 Select **Channel Guide**.

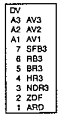


On Screen Display


Main menu
Display
Tuning
Clock
Functions
Language
Country
Channel Guide : OFF
OSD : AUTO
VCR display : DIMMED

3 Select **ON** or **OFF**.



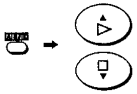

DV
A3 AV3
A2 AV2
A1 AV1
7 SFB3
6 RB3
5 BR3
4 HR3
3 NDR3
2 ZDF
1 ARD

ON: The Channel Guide will appear for a few seconds each time the channel is changed with ∨∧.
OFF: The Channel Guide will not appear.

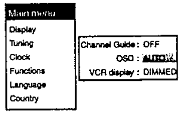
4 Press **EXIT** to exit the On Screen Display.

OSD

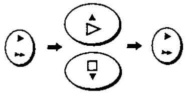
1 Press **MENU**, and then select **Display**.



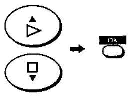
On Screen Display


Main menu
Display
Tuning
Clock
Functions
Language
Country
Channel Guide : OFF
OSD : AUTO
VCR display : DIMMED

2 Select **OSD**.



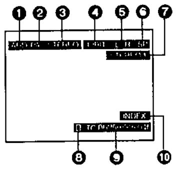
3 Select **AUTO, ON** or **OFF**.



AUTO: The On Screen Display will appear on the TV screen for a few seconds when you operate the VCR.
ON: The On Screen Display will always appear on the TV screen when you perform the VCR.
OFF: The On Screen Display will not appear.

4 Press **EXIT** to exit the On Screen Display.

To use the On Screen Display:


❶ ❷ ❸ ❹ ❺ ❻ ❼
❽ ❾ ❿

❶ **TV station**

❷ **TV system**

❸ **STEREO, M1 or M2 Indicator**
When receiving a TV programme with the Stereo, Bilingual or NICAM sound system, the type of sound system in which it is broadcast is automatically indicated.

STEREO:	When receiving a Stereo/NICAM stereo broadcast.
M1/M2:	When receiving a Bilingual/NICAM dual-sound broadcast.
M1:	When receiving a NICAM monaural broadcast.

❹ **Audio Data Indicator**

❺ **Audio Output Mode Indicator**
The Left (L) and Right (R) indicators show which sound mode is selected with **AUDIO OUT** (see page 8).

Stereo:	Both the L and R Indicators appear.
Left:	The L Indicator appears.
Right:	The R Indicator appears.

❻ **Tape speed Indicator**

❼ **Audio Monitor Indicator**
STEREO1: 12bit STEREO1 sound
STEREO2: 12bit STEREO2 sound
MIX: STEREO1 and STEREO2 mixed sound

❽ **Tape running display**

Stop, Eject	□
Rewind	◀◀
Fast Forward	▶▶
Playback	▶
Reverse Playback	◀
Reverse Slow Playback	◀I
Slow Playback	I▶
Still Playback, Pause	II
Recording	●

❾ **Present time/Time code/Remaining tape time/ Tape counter/Index/Photoshot Index Search/ One-Touch Recording (OTR)**

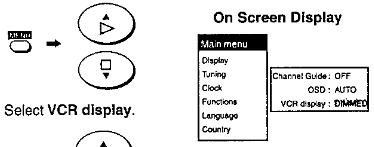
Present time	17:24:31
Time code	TC 0h25m32s04f
Remaining tape time	REMAIN: 1:16
Tape counter	−1:35.47
Index/Photoshot index Search	▶▶ 02
One-Touch Recording (OTR)	OTR 60

❿ **Index/Photoshot Index Search Indicator**

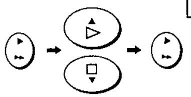
Notes:
- When the item **OSD** is set to **OFF**, the On Screen Display will not appear.
- When the AV position (A1, A2, A3 or DV IN) has been selected or during playback, the On Screen Displays (❶,❷,❸) do not appear.
- On Screen Display is not displayed when the SET UP or EDIT MENU screen is displayed.
- On Screen Display (❼) is not displayed while playing a tape that was recorded in 16bit audio mode.
- When a wide-display TV is used as a monitor, parts of the On Screen Display may not be visible depending on the type of broadcast (16:9, PAL Plus) received.

VCR display

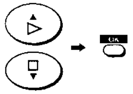
1 Press **MENU**, and then select **Display**.


MENU
On Screen Display
Main menu
Display
Tuning
Clock
Functions
Language
Country
Channel Guide : OFF
OSD : AUTO
VCR display : DIMMED

2 Select **VCR display**.



3 Select **ON**, **OFF** or **DIMMED**.



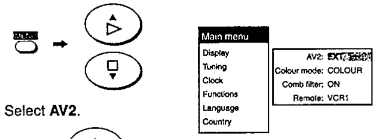
ON:	When VCR is turned off, the characters are lit in the VCR display.
OFF:	When VCR is turned off, the characters are not lit in the VCR display.
DIMMED:	When VCR is turned off, the characters are dimmed in the VCR display.

4 Press **EXIT** to exit the On Screen Display.

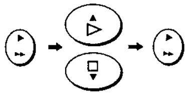
Functions

AV2

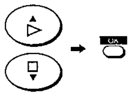
1 Press **MENU**, and then select **Functions**.


MENU
Main menu
Display
Tuning
Clock
Functions
Language
Country
AV2: EXT/DECODER
Colour mode: COLOUR
Comb filter: ON
Remote: VCR1

2 Select **AV2**.



3 Select **EXT** or **DECODER**.

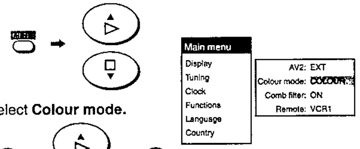


EXT:	When another VCR or a satellite receiver is connected to the AV2 (EXT/DECODER) socket.
DECODER:	When the decoder is connected to the AV2 (EXT/DECODER) socket.

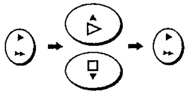
4 Press **EXIT** to exit the On Screen Display.

To Set the Colour Mode

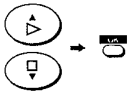
1 Press **MENU**, and then select **Functions**.


MENU
Main menu
Display
Tuning
Clock
Functions
Language
Country
AV2: EXT
Colour mode: COLOUR
Comb filter: ON
Remote: VCR1

2 Select **Colour mode**.



3 Select **COLOUR** or **B/W**.



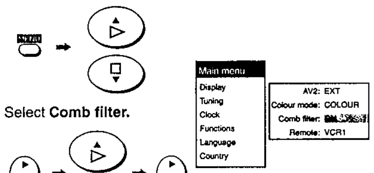
COLOUR:	When performing recording and playback in colour.
B/W:	When performing recording and playback in black-and-white.

4 Press **EXIT** to exit the On Screen Display.

Note:
When **Colour mode** is set to **B/W**, the On Screen Display will be displayed in black-and-white.

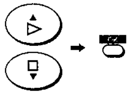
Comb filter

1 Press **MENU**, and then select **Functions**.


MENU
Main menu
Display
Tuning
Clock
Functions
Language
Country
AV2: EXT
Colour mode: COLOUR
Comb filter: ON/OFF
Remote: VCR1

2 Select **Comb filter**.

3 Select **ON** or **OFF**.

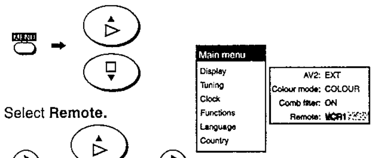


ON:	Set to increase detail. Normally set to this position.
OFF:	Set to reduce picture noise.

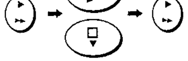
4 Press **EXIT** to exit the On Screen Display.

To Set the Remote mode

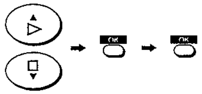
1 Press **MENU**, and then select **Functions**.


MENU
Main menu
Display
Tuning
Clock
Functions
Language
Country
AV2: EXT
Colour mode: COLOUR
Comb filter: ON
Remote: VCR1

2 Select **Remote**.



3 Select **VCR1**, **VCR2** or **VCR3**.



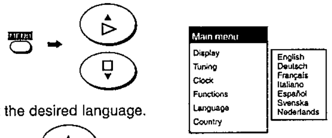
This allows the remote controller to be set for operating VCR1, VCR2 or VCR3.

- When changing the remote control mode, press **VCR1/2/3** to change the remote conrol mode of the remote controller. If this is not done, it will not be possible to operate the VCR using the remote controller.

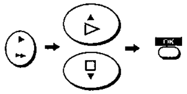
4 Press **EXIT** to exit the On Screen Display.

Language

1 Press **MENU**, and then select **Language**.


MENU
Main menu
Display
Tuning
Clock
Functions
Language
Country
English
Deutsch
Français
Italiano
Español
Svenska
Nederlands

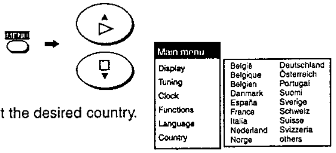
2 Select the desired language.



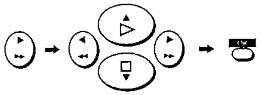
3 Press **EXIT** to exit the On Screen Display.

Country

1 Press **MENU**, and then select **Country**.


MENU
Main menu
Display
Tuning
Clock
Functions
Language
Country
België
Belgique
Belgien
Danmark
España
France
Italia
Nederland
Norge
Deutschland
Österreich
Portugal
Suomi
Sverige
Schweiz
Suisse
Svizzera
others

2 Select the desired country.



3 Press **EXIT** to exit the On Screen Display.

Editing Functions

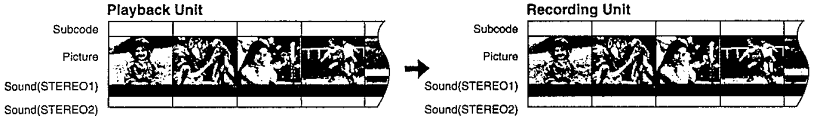
Using this VCR, 4 types of **One-Touch-Edit**, 3 types of **Manual Editing** and 3 types of **Programme Editing** can be selected.
In Programme Editing, after setting the edit start/end point, editing can be performed automatically. Edit programmes can be set up to 10 scenes for each editing function (40 scenes for Assemble editing).

One-Touch-Edit
- Assemble Editing **(page 62)**
- Insert Editing (Video, Audio, AV) **(page 64)**
- Audio Dubbing **(page 64)**
- Audio Mixing **(page 66)**

Manual Editing
- Copying **(page 68)**
- Insert Editing (Video, Audio, AV) **(page 70)**
- Audio Dubbing **(page 72)**

Programme Editing
- Assemble Editing **(page 74)**
- Insert Editing (Video, Audio, AV) **(page 78)**
- Audio Dubbing **(page 82)**

Copying
Allows the re-recording (copying) of the picture and sound from one tape onto another tape.

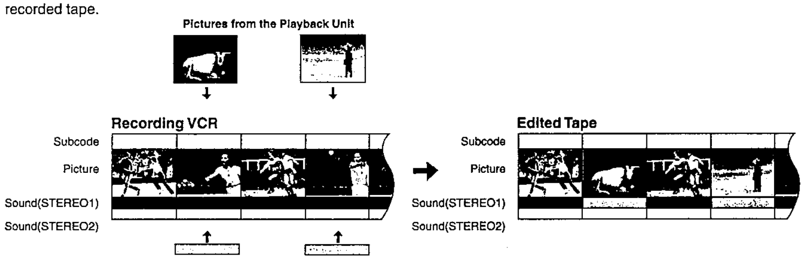

Playback Unit
Subcode
Picture
Sound(STEREO1)
Sound(STEREO2)
Recording Unit
Subcode
Picture
Sound(STEREO1)
Sound(STEREO2)

Performing the Copying operation on a tape that was recorded in 12bit audio mode.

Video Insert
Allows the partial replacement of the picture on a recorded tape. Sound is left in its original state.

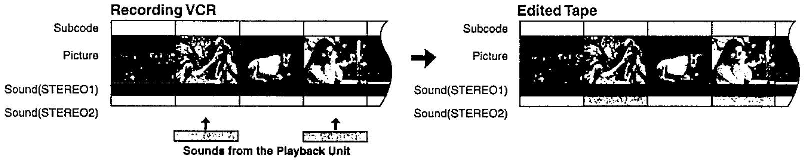
Audio Insert
Allows the partial replacement of sound on a recorded tape. Picture is left in its original state.

AV Insert
Allows the partial replacement of the picture and sound on a recorded tape.


Pictures from the Playback Unit
Recording VCR
Subcode
Picture
Sound(STEREO1)
Sound(STEREO2)
Sounds from the Playback Unit
Edited Tape
Subcode
Picture
Sound(STEREO1)
Sound(STEREO2)

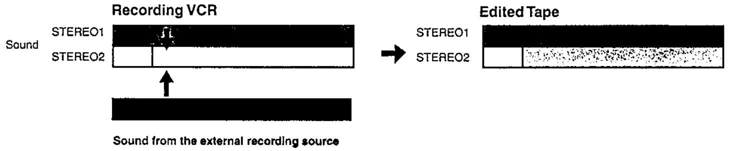
Performing the AV Insert editing operation on a tape that was recorded in 12bit audio mode.

Audio Dubbing
Allows the addition of the new sound on the STEREO2 track of a recorded tape. The original sound is left on the STEREO1 track.

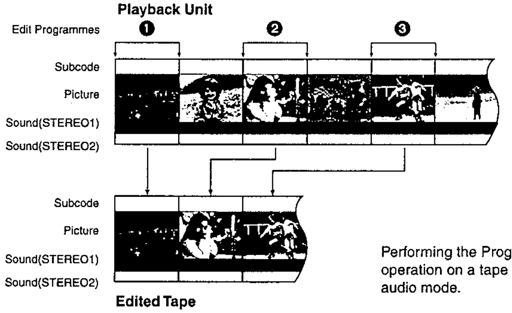

Recording VCR
Subcode
Picture
Sound(STEREO1)
Sound(STEREO2)
Sounds from the Playback Unit
Edited Tape
Subcode
Picture
Sound(STEREO1)
Sound(STEREO2)

Performing the Audio Dubbing operation on a tape that was recorded in 12bit audio mode.

Audio Mixing
Allows the mixing of the the original sound on the STEREO1 track with the new sound from the external recording source and recording the mixed sound on the STEREO2 track of a recorded tape. The original sound is left on the STEREO1 track.


Recording VCR
Sound
STEREO1
STEREO2
Sound from the external recording source
Edited Tape
STEREO1
STEREO2

Assemble Editing
Allows the required scenes (picture and sound) to be picked up from a recorded tape and recorded in any desired order onto another tape.


Playback Unit
Edit Programmes
❶
❷
❸
Subcode
Picture
Sound(STEREO1)
Sound(STEREO2)
Subcode
Picture
Sound(STEREO1)
Sound(STEREO2)
Edited Tape

Performing the Programme Assemble editing operation on a tape that was recorded in 12bit audio mode.

Creating the Tapes For Editing

In order to operate editing functions correctly, use these tapes for editing as follows:

- **Tape on which the picture and sound have been recorded properly for about 20 seconds prior to the edit start point**: [Playback unit] [Recording unit]
  This VCR first rewinds the tape to the section prior to the edit start point and then commences editing. For this reason, accurate editing cannot be performed if the tape has been left blank or if the picture and sound have not been recorded properly for 20 seconds prior to the edit start point.
- **Tape on which the Time code has been recorded continuously**: [Playback unit] [Recording unit]
  If the recording is broken up or if the tape is blank in places, the Time code will lack continuity, and editing will be aborted.
- **Tape which was recorded in SP mode**: [Recording unit]
  (This applies to Insert, Audio Dubbing and Audio Mixing only.)
  The above types of editing operations cannot be performed on a tape which was recorded in the LP mode.
- **Tape which was recorded in the 12bit audio mode**: [Recording unit]
  (This applies to AV Insert, Audio Dubbing and Audio Mixing editing only.)
  The above types of editing operations cannot be performed on a tape which was recorded in the 16bit audio mode.

When a tape which was recorded on another video recorder is used for Insert, Audio Dubbing or Audio Mixing editing operations, the sound may deteriorate and the picture may be disturbed.

If tapes answering to the above description are not available, proceed with dubbing by following the steps below to create the tapes for editing.

1 Load the original cassette tape into the playback unit and the new cassette tape into the recording VCR (the NV-DV10000).

2 Connect the playback unit and recording VCR (the NV-DV10000).
For the connection, use the DV cable when the contents of the original cassette are to be copied using their original digital signals, and use the AV cable when the contents are to be copied using the signals from the video and audio sockets.
(To dub a 16bit audio tape and make a 12bit audio tape, connect the units using the AV cables, and proceed with the dubbing.)

3 Check that **EDIT CONTROL** is at the **OFF** position.

4 Set the VCR's tape speed to **SP.**

5 Record a blank picture for about 20 seconds.
Set the playback unit to the stop mode, set **INPUT SELECT** on the recording VCR (the NV-DV10000) to A2 or A3, and start recording.

6 Switch over the input of the recording VCR (the NV-DV10000).
If the DV cable was used for the connection in step **2**, switch over to "DV IN"; if the AV cable was used, switch over to A1, A2 or A3.

7 Press the play button on the playback unit to start playing the original tape.

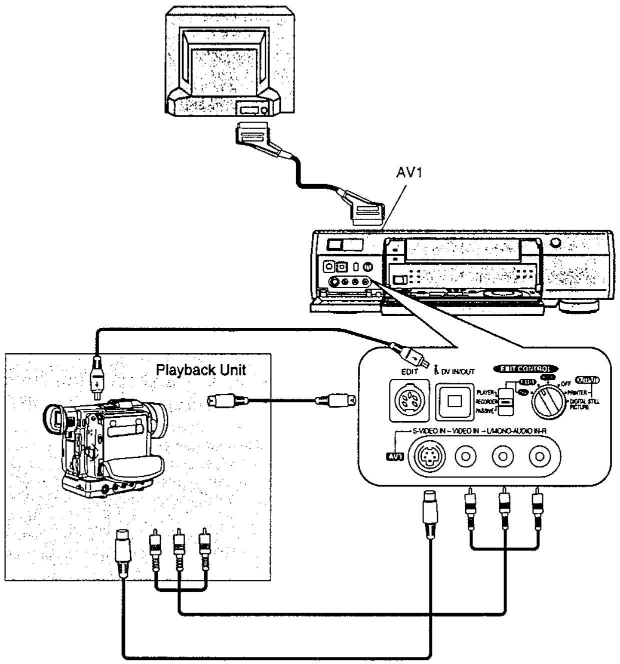
8 Press **REC (REC/OTR)** on the recording VCR (the NV-DV10000) to start dubbing.

Notes:

- Digital copying using a DV cable yields a picture quality which undergoes hardly any deterioration at all.
- If a digital video tape is dubbed without connecting the DV cable, the original sub code data (Photoshot index signals, date information, etc.) will not be copied.
- The Time code is simultaneously recorded over the sub code of the tape when the tape is recorded. Also recorded in the sub code are the photoshot index signals, information on the recording date, etc.
  For further details on the Time code, see page 92.

Connecting with a Digital Video Camera

Example for connecting Panasonic NV-DX100 Digital Video Camera as the playback unit, when controlling the playback unit through the NV-DV10000.



Notes:
- Before connecting any cables, first make sure that the power for both units is off.
- Insert a recorded cassette into the playback unit, and a cassette with the closed record prevention tab into the VCR.
- If the playback unit is connected to the recording unit via an S-VIDEO cable, the video signal on the S-VIDEO cable takes priority. If the playback unit does not have an S-VIDEO socket do not connect the S-VIDEO cable to the NV-DV10000.
- If units are connected to the VIDEO input sockets on both the front and rear of this VCR, the rear video inputs are automatically switched off.
- Use of an AC adaptor as the power source for the Digital Video Camera is recommended. Doing so avoids a situation where the camera shuts down due to low battery power.
- It is recommended that the DV cable be disconnected for editing with **INPUT SELECT** set to A1-A3. If **INPUT SELECT** is set to A1-A3 with the connections shown in the figure left unchanged, the TV picture may be disturbed or noise may occur. (This has no effect on the actual editing operations.)
- When the units are connected using the DV cable and editing is performed, some editing functions will differ compared with when the units are connected using the AV cable. Refer to Glossary of Terms on page 92.
- When performing editing by connecting the units via a 21-pin scart cable, set the **AV2** setting to **EXT.**
- Read the operating instructions of the Digital Video Camera.
- Do not change the **EDIT CONTROL** or **EDIT MODE** settings while performing setting or editing operations at the SET UP or EDIT MENU screens. Be sure to quit these screens before changing these settings.

Playback Unit
(Digital Video Camera)

1 Turn the power on.

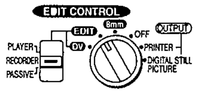
2 Make the Time code appear on the LCD monitor or the viewfinder.

3 Prepare the tape for playback.

Recording Unit
(the NV-DV10000)

1 Turn the power on.

2 Set **EDIT MODE** to **RECORDER.**



3 Set **EDIT CONTROL** to **EDIT.**

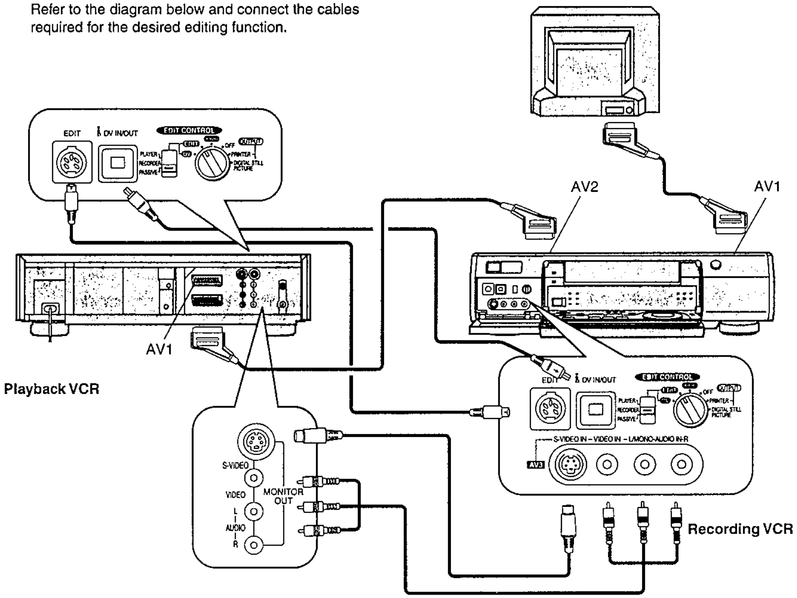
4 Press **INPUT SELECT** on the editing controller so that DV IN is selected.
- When performing Audio Dubbing or AV Insert, select A2 or A3.

Notes:
- When using a Panasonic Digital Video Camera as the playback unit, the following editing functions can be used by connecting the camera to the NV-DV10000 with just a DV cable:
  Copying
  Video Insert
  Audio Insert
  Assemble
  In this case, simply set **INPUT SELECT** to DV IN, and set **EDIT CONTROL** to **DV.**
  (This function may not operate properly with some models.)
- Use Time codes for Programme Editing when the playback unit is connected to the NV-DV10000 via only a DV cable.

Connecting Two Digital Video Cassette Recorders (Both This Model)

Example for connecting two NV-DV10000, when controlling the playback VCR through the recording VCR.

Refer to the diagram below and connect the cables required for the desired editing function.

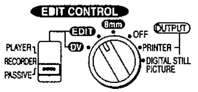

EDIT
DV IN/OUT
EDIT CONTROL
PLAYER
RECORDER
PASSIVE
OFF
OUTPUT
PRINTER
DIGITAL STILL PICTURE
AV2
AV1
AV1
Playback VCR
S-VIDEO
VIDEO
MONITOR OUT
L
AUDIO
R
S-VIDEO IN - VIDEO IN - L/MONO-AUDIO IN-R
AV3
Recording VCR

Notes:
- Before connecting any cables, first make sure that the power for both VCRs is off.
- Insert a recorded cassette into the playback VCR, and a cassette with the closed record prevention tab into the VCR.
- When the units are connected using the DV cable and editing is performed, some editing functions will differ compared with when the units are connected using the AV cable. Refer to Glossary of Terms on page 92.
- Use Time codes for programme editing when the playback VCR is connected to the NV-DV10000 via only a DV cable.
- When performing editing by connecting the units via a 21-pin scart cable, set the **AV2** setting to **EXT.**
- It is recommended that the DV cable be disconnected for editing with **INPUT SELECT** set to A1-A3. If **INPUT SELECT** is set to A1-A3 with the connections shown in the figure left unchanged, the TV picture may be disturbed or noise may occur. (This has no effect on the actual editing operations.)
- If one of either the 21-pin scart cable or the AV cable is connected, it is not necessary to connect the other. If both cables are connected, electronic noise may be generated when the playback VCR and the recording VCR are in stop mode. Although this noise will not have any effect on the actual editing operations, if it does become annoying, set the **INPUT SELECT** on the playback VCR to a position for which no cable is connected.
- When the connections and setting are made as shown above, then :
  - · The Timer recording On Screen Display cannot be displayed on the playback VCR.
  - · The ▷**(PLAY)**, ▶▶**(FAST FORWARD)**, **REC (REC/OTR)**, and the other such buttons on the playback VCR or the remote controller cannot be used to control the playback VCR directly. In order to permit direct control, set **EDIT CONTROL** on the playback VCR to **OFF.**
- Do not change the **EDIT CONTROL** or **EDIT MODE** settings while performing setting or editing operations at the SET UP or EDIT MENU screens. Be sure to quit these screens before changing these settings.

Playback VCR

1 Turn the power on.

2 Set **EDIT MODE** to **PASSIVE.**

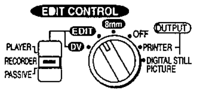

EDIT CONTROL
EDIT
8mm
DV
OFF
OUTPUT
PLAYER
RECORDER
PASSIVE
PRINTER
DIGITAL STILL PICTURE

3 Set **EDIT CONTROL** to **EDIT.**

Recording VCR

1 Turn the power on.

2 Set the **EDIT MODE** to **RECORDER.**


EDIT CONTROL
EDIT
8mm
DV
OFF
OUTPUT
PLAYER
RECORDER
PASSIVE
PRINTER
DIGITAL STILL PICTURE

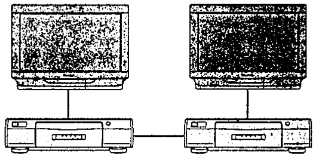
3 Set **EDIT CONTROL** to **EDIT.**

4 Press **INPUT SELECT** on the editing controller so that DV IN is selected.
- When performing Audio Dubbing or AV Insert, select A2 or A3.

Note:
The following editing functions can be used by connecting the playback VCR with just a DV cable:
Copying
Video Insert
Audio Insert
Assemble
In this case, simply set **INPUT SELECT** to DV IN, and set **EDIT CONTROL** to **DV.**

Controlling the Recording VCR through the Playback VCR

Follow the procedure described below:
- Use 21pin-scart cable or AV cables to connect the input sockets on the recording VCR with the output sockets on the playback VCR.
- Connect two TVs, one to each of the VCRs, so that the screens from both VCRs can both be seen.
- Press **INPUT SELECT** on the playback VCR so that A2 or A3 is selected.
- Set **EDIT MODE** on both VCRs as follows:
  Playback VCR : **PLAYER**
  Recording VCR : **PASSIVE**

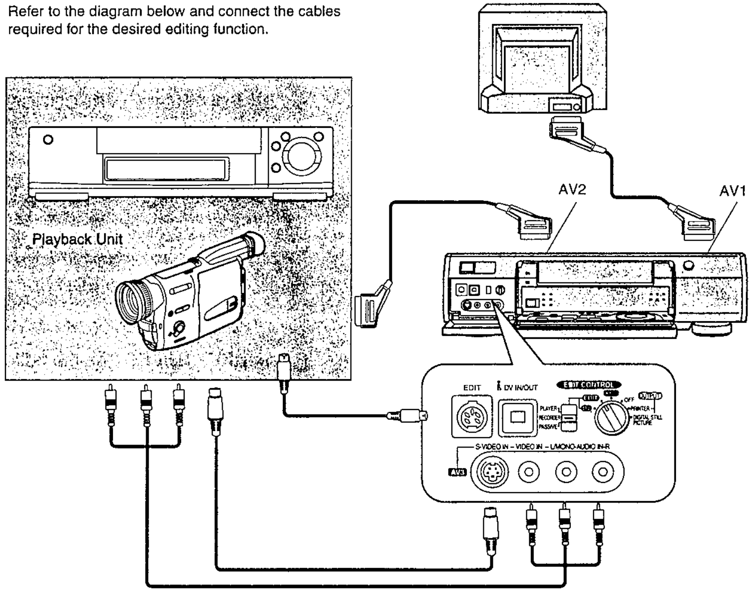

Recording VCR
Playback VCR

Notes:
- Although noise may appear on the screen, depending on the connections, the noise has no effect on the actual editing operations.
- Audio Insert and AV Insert are not possible in this configuration.

Connecting an S-VHS (VHS) Video Equipment with an Edit Socket

Example for connecting an S-VHS (VHS) video equipment with an Edit socket as the playback unit, when controlling the playback unit through the recording VCR (this unit).

Refer to the diagram below and connect the cables required for the desired editing function.



Notes:
- Before connecting any cables, first make sure that the power for both units is off.
- Insert a recorded cassette into the playback unit, and a cassette with the closed record prevention tab into the VCR.
- If the playback unit is connected to the recording unit via an S-VIDEO cable, the video signal on the S-VIDEO cable takes priority. If the playback unit does not have an S-VIDEO socket do not connect the S-VIDEO cable to the NV-DV10000.
- If units are connected to the VIDEO input sockets on both the front and rear of this VCR, the rear video inputs are automatically switched off.
- When performing editing by connecting the units via a 21-pin scart cable, set the **AV2** setting to **EXT.**
- If one of either the 21-pin scart cable or the AV cable is connected, it is not necessary to connect the other. If both cables are connected, electronic noise may be generated when the playback VCR and the recording VCR are in stop mode. Although this noise will not have any effect on the actual editing operations, if it does become annoying, set the **INPUT SELECT** on the playback VCR to a position for which no cable is connected.
- Read the operating instructions of the playback unit.
- Do not change the **EDIT CONTROL** or **EDIT MODE** settings while performing setting or editing operations at the SET UP or EDIT MENU screens. Be sure to quit these screens before changing these settings.
- When using this VCR as the recording VCR and performing editing by connecting the units via the AV cable or a 21-pin Scart cable, the On Screen Display (date/time, Time Code) may scroll vertically when still playback or slow playback are performed by the playback VCR.

Playback Unit (S-VHS (VHS) Video Equipment with an Edit socket)

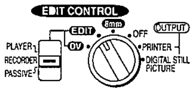
1 Turn the power on.

2 Set the unit so that it is ready to be controlled.
- Read the operating instructions of the playback unit and make the necessary settings.

Recording VCR (the NV-DV10000)

1 Turn the power on.

2 Set **EDIT MODE** to **RECORDER.**

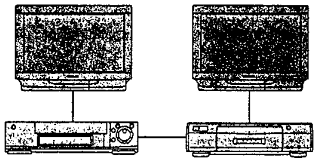


3 Set **EDIT CONTROL** to **EDIT.**

4 Press **INPUT SELECT** on the editing controller so that A3 is selected.
- If the playback unit is connected to the external input on the rear of the NV-DV10000, select A2.

Connecting the NV-DV10000 as the Playback VCR to an S-VHS (VHS) VCR

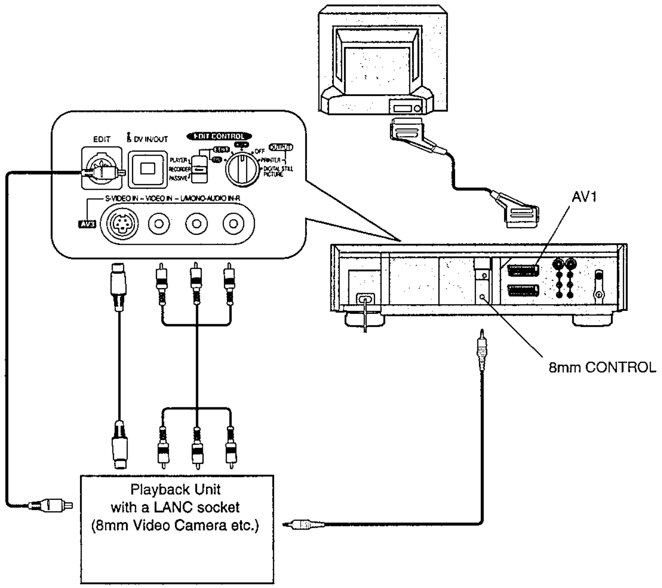
Follow the procedure described below.
- Use AV cables to connect the output sockets on the NV-DV10000 with the input sockets on the S-VHS (VHS) VCR.
- Press **INPUT SELECT** on the NV-DV10000 so that A2 or A3 is selected.
- Connect two TVs, one to the NV-DV10000 and one to the S-VHS (VHS) VCR, so that the screens from both VCRs can both be seen.
- Set **EDIT MODE** on the NV-DV10000 to **PLAYER.**
- Make the necessary editing control settings for the S-VHS (VHS) VCR. (Read the operating instructions of S-VHS (VHS) VCR.)



Note:
Audio Insert and AV Insert are not possible in this configuration.

Connecting a Video Equipment with a LANC Socket

Example for connecting another manufacturer's video equipment with a LANC terminal (L control) as the playback unit, when controlling the playback unit through the VCR.


EDIT
DV IN/OUT
EDIT CONTROL
PLAYER
RECORDER
PASSIVE
OFF
OUTPUT
PRINTER
DIGITAL STILL PICTURE
S-VIDEO IN – VIDEO IN – L/MONO-AUDIO IN-R
AV3
AV1
8mm CONTROL
Playback Unit
with a LANC socket
(8mm Video Camera etc.)

Notes:
- Before connecting any cables, first make sure that the power for both units is off.
- Insert a recorded cassette into the playback unit, and a cassette with the closed record prevention tab into the VCR.
- The NV-DV10000 cannot be controlled through video equipment with a LANC socket.
- Some types of LANC sockets have a different shape to the LANC socket on the NV-DV10000.
- If an attempt is made to perform an operation through the NV-DV10000 that the playback unit does not support, the unit may operate incorrectly.
- If the playback unit is connected to the recording unit via an S-VIDEO cable, the video signal on the S-VIDEO cable takes priority. If the playback unit does not have an S-VIDEO socket do not connect the S-VIDEO cable to the NV-DV10000.
- If units are connected to the VIDEO input sockets on both the front and rear of this VCR, the rear video inputs are automatically switched off.
- When the units are connected using the DV cable and editing is performed, some editing functions will differ compared with when the units are connected using the AV cable. Refer to Glossary of Terms on page 92.
- Read the operating instructions of the playback unit.

Playback Unit (a Video Equipment with a LANC socket)

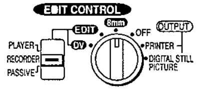
1 Turn the power on.

2 Set the unit so that it is ready to be controlled.
- Read the operating instructions of the playback unit and make the necessary settings.

Recording VCR (the NV-DV10000)

1 Turn the power on.

2 Set the **EDIT CONTROL** to **8mm.**

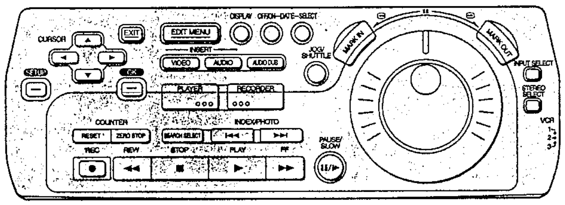

EDIT CONTROL
EDIT
8mm
OFF
OUTPUT
PLAYER
RECORDER
PASSIVE
DV
PRINTER
DIGITAL STILL PICTURE

3 Press **INPUT SELECT** on the editing controller so that A3 is selected.
- If the playback unit is connected to the external input on the rear of the NV-DV10000, select A2.
- When the playback unit is connected via a DV cable, select DV IN.
- When performing Audio Dubbing or AV Insert, select A2 or A3.

Notes:
- Do not change the **EDIT CONTROL** or **EDIT MODE** settings while performing setting or editing operations at the SET UP or EDIT MENU screens. Be sure to quit these screens before changing these settings.
- When using this VCR as the recording VCR and performing editing by connecting the units via the AV cable or a 21-pin Scart cable, the On Screen Display (date/time, Time Code) may scroll vertically when still playback or slow playback are performed by the playback VCR.

Initial Settings for Editing

This VCR also allows some settings for editing to be made at the On Screen Display (OSD).


CURSOR
EXIT
EDIT MENU
DISPLAY
OFF/ON-DATE-SELECT
INSERT
VIDEO
AUDIO
AUDIO DUB
JOG/SHUTTLE
MARK IN
MARK OUT
INPUT SELECT
STEREO SELECT
VCR
SET UP
OK
PLAYER
RECORDER
COUNTER
INDEX/PHOTO
RESET
ZERO STOP
SEARCH SELECT
REC
REW
STOP
PLAY
FF
PAUSE/SLOW

Preparations

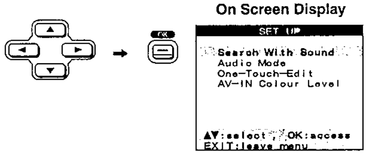
- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings. See pages 50-57.

Search with Sound

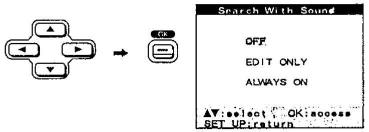
1 Press **SET UP.**

2 Select **Search With Sound** and press **OK.**

On Screen Display


OK
SET UP
Search With Sound
Audio Mode
One-Touch-Edit
AV-IN Colour Level
▲▼:select , OK:access
EXIT:leave menu

3 Select **OFF, EDIT ONLY** or **ALWAYS ON,** and then press **OK.**


OK
Search With Sound
OFF
EDIT ONLY
ALWAYS ON
▲▼:select , OK:access
SET UP:return

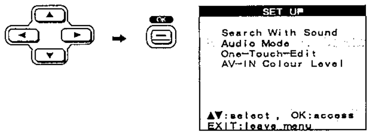
OFF:	The sound cannot be heard during special playback.
EDIT ONLY:	The sound can be heard during special playback only when an editing operation is in progress.
ALWAYS ON:	The sound can be always heard during special playback.

4 Press **EXIT** to exit the On Screen Display.

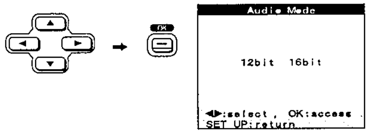
Audio Mode

1 Press **SET UP.**

2 Select **Audio Mode** and press **OK.**


OK
SET UP
Search With Sound
Audio Mode
One-Touch-Edit
AV-IN Colour Level
▲▼:select , OK:access
EXIT:leave menu

3 Select **12bit** or **16bit,** and then press **OK.**


OK
Audio Mode
12bit 16bit
◀▶:select , OK:access
SET UP:return

12bit:	Divides the audio area into two stereo audio tracks, STEREO1 and STEREO2. •If a recording is made in 12bit audio mode, the sound is recorded on STEREO1 only, and is not recorded on STEREO2. STEREO2 is used to record new audio that is added through Audio Dubbing or Audio Mixing.
16bit:	Uses the entire audio area in order to record audio with greater quality.

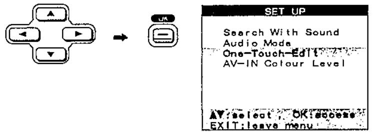
4 Press **EXIT** to exit the On Screen Display.

One-Touch-Edit

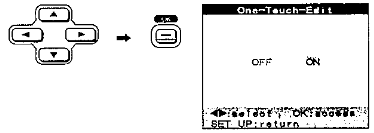
1 Press **SET UP.**

2 Select **One-Touch-Edit** and press **OK.**

On Screen Display


OK
SET UP
Search With Sound
Audio Mode
One-Touch-Edit
AV-IN Colour Level
▲▼:select , OK:access
EXIT:leave menu

3 Select **OFF** or **ON,** and then press **OK.**


OK
One-Touch-Edit
OFF ON
◀▶:select , OK:access
SET UP:return

OFF:	Select this whenever you are performing any editing function other than One-Touch-Edit.
ON:	Select this in order to perform One-Touch-Edit.

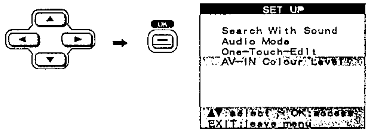
•One-Touch-Edit is possible only when **EDIT CONTROL** is set to either **DV, EDIT,** or **8mm,** and **EDIT MODE** is set to **RECORDER.**

4 Press **EXIT** to exit the On Screen Display.

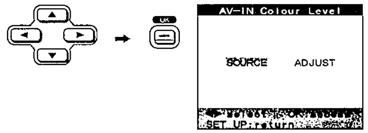
AV-IN Colour Level

1 Press **SET UP.**

2 Select **AV-IN Colour Level,** and press **OK.**


OK
SET UP
Search With Sound
Audio Mode
One-Touch-Edit
AV-IN Colour Level
▲▼:select , OK:access
EXIT:leave menu

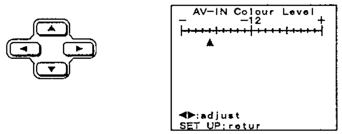
3 Select **SOURCE** or **ADJUST,** and then press **OK.**


OK
AV-IN Colour Level
SOURCE ADJUST
◀▶:select , OK:access
SET UP:return

SOURCE:	Normally set this position.
ADJUST:	To adjust the colour level of the input external recording source.

If you select **ADJUST** and then press **OK,** the AV-IN Colour Level screen is displayed.

4 Adjust the colour level using ◀▶.


AV-IN Colour Level
−12
−
+
◀▶:adjust
SET UP:retur

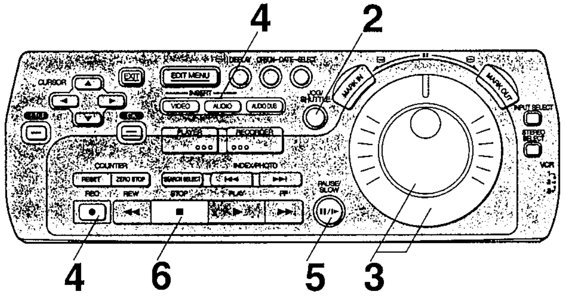
Press ◀ to make the colour lighter
Press ▶ to make the colour darker
The setting can be adjusted over a range of ±20.

5 Press **SET UP,** and then press **EXIT** to exit the On Screen Display.

Notes:
- If **INPUT SELECT** is set to DV IN, the Audio Mode menu, and the AV-IN Colour Level menu cannot be selected.
- The SET UP or EDIT MENU screen is displayed in English, regardless of the language that is set for the On Screen Display.
- The AV-IN Colour Level menu can be selected in following cases:
  INPUT SELECT is set to A1, A2 or A3;
  When the VCR is in stop mode

Editing when Not Using an Edit Cable

To connect a VCR or Movie Camera without an Edit Socket and use the NV-DV10000 as the Recording VCR.



Preparations

- Complete necessary connections and settings. See pages 50-57.
- Connect the AV1 socket on the NV-DV10000 to the TV.
- Connect the AV2 socket or the AUDIO/VIDEO/S-VIDEO IN (AV3) sockets on the NV-DV10000 to the playback unit. Set **INPUT SELECT** on this VCR as follows:
  - A2: Through the AV2 socket
  - A3: Through the AV3 sockets on the front panel or rear panel.
- If the playback unit has a DV terminal, connect to the DV IN/OUT on the NV-DV10000 with a DV cable.

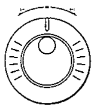
Operations

1 Using the controls on the playback unit, search for the edit start point, and then pause the playback.

2 Press **JOG/SHUTTLE** on the NV-DV10000, and check that the button is lit.

JOG/
SHUTTLE

3 Search for the edit start point.



4 Press the button for the editing mode on the NV-DV10000.

To copy the contents of the tape in the playback unit as is: Press **REC.**
To insert picture: Press **VIDEO INSERT.**
To insert sound: Press **AUDIO INSERT.**
To insert picture and sound: Press **VIDEO INSERT** and then press **AUDIO INSERT**(or vice versa).
To add new sound: Press **AUDIO DUB.**
For Audio Mixing: Press **AUDIO DUB** and then press **MIXING EDIT** on the front right panel.

- The Audio Mixing procedure differs in part from other editing operations. See page 66.

5 Press **PAUSE/SLOW** on the NV-DV10000 and start playback on the playback unit simultaneously.

- Editing begins.

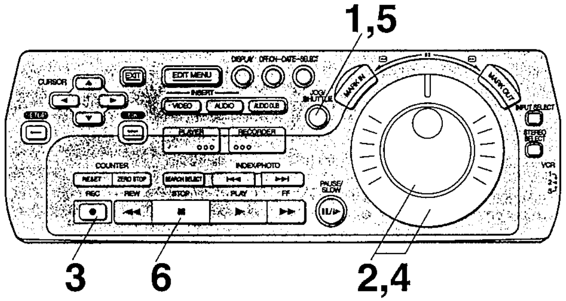
6 Press ■ **(STOP)** on the NV-DV10000, and then press STOP on playback unit to stop editing.

Notes:

- Although Copying can be performed in LP mode, Insert and Audio Dubbing cannot be performed with a tape recorded in LP mode. It is necessary to first copy the tape in SP mode.
- **Video Insert and Audio Insert are not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle.
- **AV Insert , Audio Dubbing and Audio Mixing are not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in 16bit audio mode;
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle.
  When **INPUT SELECT** is set to DV IN.
- If the time display on the NV-DV10000 is set to tape counter mode during editing, the NV-DV10000 stops the editing operation automatically when the counter reaches "0:00.00".
  (This function does not work when using the Copying or Audio Dubbing functions.)

One-Touch Assemble

If the One-Touch Edit function is used, Assemble editing can be performed by controlling the playback unit through the NV-DV10000.


1,5
CURSOR
EXIT
EDIT MENU
DISPLAY
OFF/CH-DATE-SELECT
JOG/SHUTTLE
MARK IN
MARK OUT
INPUT SELECT
INSERT
VIDEO
AUDIO
AUDIO DUB
PLAYER
RECORDER
COUNTER
INDEX/PHOTO
RESET
ZERO STOP
SEARCH SELECT
REC
REW
STOP
PLAY
FF
PAUSE/SLOW
STEREO SELECT
VCR
3
6
2,4

Preparations

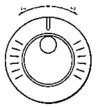
- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings. See pages 50-57.
- Set to **One-Touch-Edit ON** on SET UP menu.

Operations

1 Press **JOG/SHUTTLE** on the NV-DV10000, and check that the button is lit.

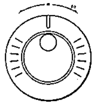
JOG/
SHUTTLE

2 Search for the edit start point on the NV-DV10000.



3 Press **REC.**
- The picture from the playback unit appears on the screen.

4 Search for the edit start point on the playback unit using Jog dial and Shuttle Ring on the NV-DV10000.



5 Press **JOG/SHUTTLE** on the NV-DV10000.
- Editing begins.

JOG/
SHUTTLE

6 Press ■ **(STOP)** on the NV-DV10000, to stop editing.

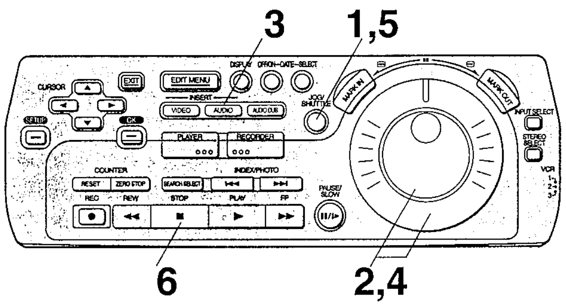
To continue editing:

Press **JOG/SHUTTLE** on the NV-DV10000, and repeat steps **4-5.**

Notes:
- Although Assemble editing can be performed in LP mode, Insert, Audio Dubbing, and Audio Mixing cannot be performed with a tape recorded in LP mode. It is necessary to first copy the tape in SP mode.
- In order to ensure that the editing operation is performed properly, the editing points should be set at least 20 seconds after the beginning of the tape.
- When using the editing controller for remote control: In order to conserve battery power, **JOG/SHUTTLE** turns off after one minute. If **JOG/SHUTTLE** turns off after the edit start point has been set on the recording unit (step **2**), it is necessary to press **JOG/SHUTTLE** again (so that it is lit) before searching for the edit start point on the playback unit. If **JOG/SHUTTLE** turns off after the edit start point has been determined on the playback unit (step **4**), it is necessary to press **JOG/SHUTTLE** twice in order to start editing.

One-Touch Insert /Audio Dubbing

If the One-Touch Edit function is used, Insert (Video Insert, Audio Insert, and AV Insert) and Audio Dubbing can be performed by controlling the playback unit through the NV-DV10000.


3
1,5
6
2,4
CURSOR
EXIT
EDIT MENU
DISPLAY
OFF/ON-DATE-SELECT
INSERT
VIDEO
AUDIO
AUDIO DUB
JOG/SHUTTLE
MARK IN
MARK OUT
INPUT SELECT
STEREO SELECT
SET UP
OK
PLAYER
RECORDER
COUNTER
INDEX/PHOTO
RESET
ZERO STOP
SEARCH SELECT
REC
REW
STOP
PLAY
FF
PAUSE/SLOW
VCR

Preparations

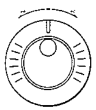
- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings. See pages 50-57.
- Set to **One-Touch-Edit ON** on SET UP menu.

Operations

1 Press **JOG/SHUTTLE** on the NV-DV10000, and check that the button is lit.

JOG/
SHUTTLE

2 Search for the edit start point on the NV-DV10000.

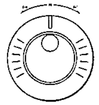


3 Press the button for the editing mode on the NV-DV10000.

To insert picture: Press **VIDEO INSERT.**
To insert sound: Press **AUDIO INSERT.**
To insert picture and sound: Press **VIDEO INSERT** and then press **AUDIO INSERT**(or vice versa).
To add new sound: Press **AUDIO DUB.**

- The picture from the playback unit appears on the screen.

4 Search for the edit start point on the playback unit using Jog dial and Shuttle Ring on the NV-DV10000.



5 Press **JOG/SHUTTLE** on the NV-DV10000.

- Editing begins.

JOG/
SHUTTLE

6 Press ■ **(STOP)** on the NV-DV10000, to stop editing.

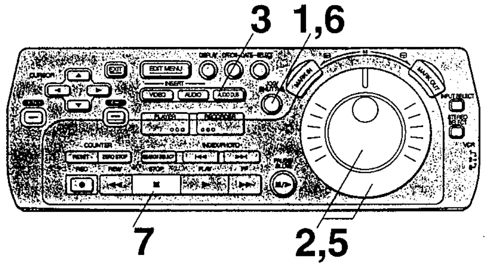
To continue editing:
Press **JOG/SHUTTLE** on the NV-DV10000, and repeat steps **4-5.**

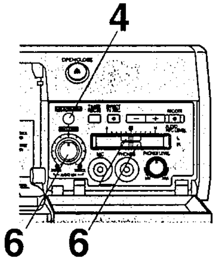
Notes:

- **Video Insert and Audio Insert are not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle.
- **AV Insert and Audio Dubbing are not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in 16bit audio mode;
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle.
  When **INPUT SELECT** is set to DV IN.
- If the time display on the NV-DV10000 is set to tape counter mode during editing, the NV-DV10000 stops the editing operation automatically when the counter reaches "0:00.00".
- In order to ensure that the editing operation is performed properly, the editing points should be set at least 20 seconds after the beginning of the tape.
- When using the editing controller for remote control:
  In order to conserve battery power, **JOG/SHUTTLE** turns off after one minute.
  If **JOG/SHUTTLE** turns off after the edit start point has been set on the recording unit (step **2**), it is necessary to press **JOG/SHUTTLE** again (so that it is lit) before searching for the edit start point on the playback unit.
  If **JOG/SHUTTLE** turns off after the edit start point has been determined on the playback unit (step **4**), it is necessary to press **JOG/SHUTTLE** twice in order to start editing.

One-Touch Audio Mixing

This function is used to mix the audio on STEREO1, which has already been recorded, with audio from a external recording source (A2 or A3), and record the result on STEREO2.
This function is useful for adding new audio, such as music or a narration, to the original audio which has already been recorded.





Preparations

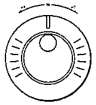
- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings. See pages 50-57.
- Set to **One-Touch-Edit ON** on SET UP menu.

Operations

1 Press **JOG/SHUTTLE** on the NV-DV10000, and check that the button is lit.

JOG/
SHUTTLE

2 Search for the edit start point on the NV-DV10000.



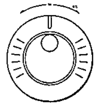
3 Press **AUDIO DUB** the editing mode on the NV-DV10000.
- The picture from the playback unit appears on the screen.

Notes:

- **Audio Mixing is not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in 16bit audio mode;
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle.
  When **INPUT SELECT** is set to DV IN.
- In order to ensure that the editing operation is performed properly, the editing points should be set at least 20 seconds after the beginning of the tape.

4 Press **MIXING EDIT** on the NV-DV10000.

5 Search for the edit start point on the playback unit using Jog dial and Shuttle Ring on the NV-DV10000.



6 Press **JOG/SHUTTLE** on the NV-DV10000.
- Editing begins.
- If necessary, adjust the loudness of the STEREO1 sound using **AUDIO MIX** and the loudness of the sound from the playback unit using **AUDIO REC LEVEL.**

JOG/
SHUTTLE

7 Press ■ **(STOP)** on the NV-DV10000, to stop editing.

To continue editing:
Press **JOG/SHUTTLE** on the NV-DV10000, and repeat steps **5-6.**

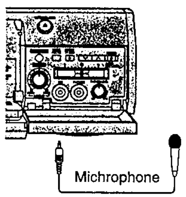
To Monitor the mixed signal after Audio Mixing

- After Audio Mixing, the resulting audio can be heard by pressing **STEREO SELECT** and selecting STEREO2.
- If you wish to adjust the volume of the original audio (STEREO1) and external recording source (A2 or A3) during Audio Mixing,

AUDIO MIX: To adjust the volume of the original audio (STEREO1).
AUDIO REC LEVEL: To adjust the volume of the audio from external recording source (A2 or A3).

When editing with a microphone

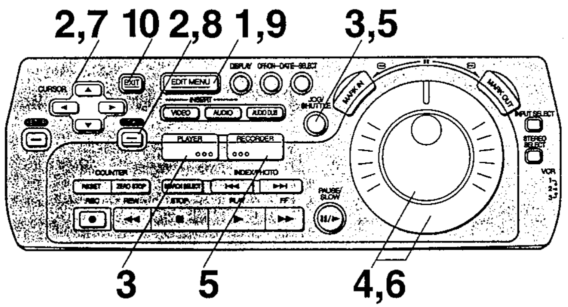
1. Connect the microphone to the MIC socket.
2. Press **JOG/SHUTTLE.**
3. Use Jog Dial and Shuttle Ring to search the recording start point.
4. Press **AUDIO DUB.**
5. Press **MIXING EDIT.**
6. Use **AUDIO REC LEVEL** slider to adjust the microphone level.
7. Press **PAUSE/SLOW.**



- The audio from the microphone is recorded as monaural audio. Use audio cables to connect audio equipment, etc., in order to record in stereo.
- If both the MIC socket and the line inputs are connected, the audio from the MIC socket is given priority in recording.

Manual Copying

This function can be used to copy tapes between digital video equipments with practically no deterioration in quality.
This function can also copy a tape that was recorded in S-VHS (VHS) format onto a digital video tape.



Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings. See pages 50-57.

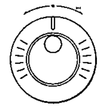
Operations

1 Press **EDIT MENU.**

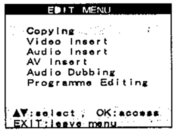
2 Check that **Copying** is selected and press **OK.**

3 Press **PLAYER,** and then press **JOG/SHUTTLE.**
- The picture from the playback unit appears on the screen.

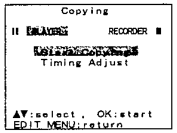
4 Search for the edit start point on the playback unit.



On Screen Display

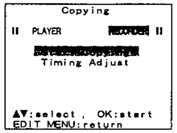


```
EDIT MENU

Copying
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Programme Editing

▲▼:select , OK:access
EXIT:leave menu
```



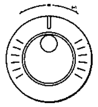
```
Copying
II PLAYER          RECORDER ■
      Start Copying
      Timing Adjust

▲▼:select , OK:start
EDIT MENU:return
```

5 Press **RECORDER,** and then press **JOG/SHUTTLE.**
- The picture from the recording VCR appears on the screen.



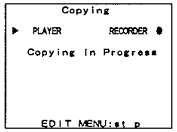
```
Copying
II PLAYER          RECORDER II
      Start Copying
      Timing Adjust

▲▼:select , OK:start
EDIT MENU:return
```

6 Search for the edit start point on the recording VCR.



7 Select **Start Copying.**

8 Press **OK.**
- Editing begins.



```
Copying
▶ PLAYER          RECORDER ●
  Copying In Progress



     EDIT MENU:st p
```

9 Press **EDIT MENU** to stop editing.

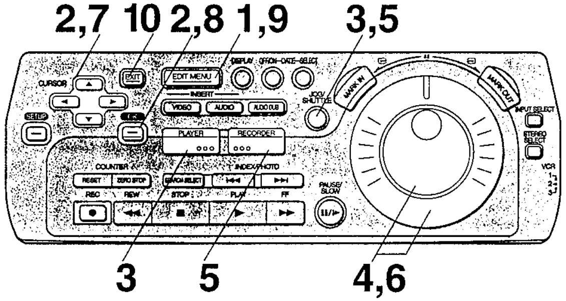
- Operation now returns to the screen which appears in step **3.** This makes it possible to continue with editing or change the point at which editing is to start.

10 Press **EXIT.**
- The On Screen Display disappears.

Notes:
- If a digital video tape is copied without connecting a DV cable, the original sub code data (photoshot index signals, recording date, etc.) is not copied.
- Although Copying can be performed in LP mode, Insert and Audio Dubbing cannot be performed with a tape recorded in LP mode. It is necessary to first copy the tape in SP mode.
- In order to ensure that the editing operation is performed properly, the editing points should be set at least 20 seconds after the beginning of the tape.
- The pause operation may be indicated on the display of the playback unit even though the playback unit is actually playing the tape in slow motion.
- Up to ±1 second of slight deviation in the specified edit start position can be corrected. See page 90 for Edit Timing Adjustment.

Manual Insert

This function is used to replace the picture and sound on a recorded tape.


2,7
10
2,8
1,9
3,5
3
5
4,6
CURSOR
SETUP
EXIT
EDIT MENU
DISPLAY
OFF/ON-DATE-SELECT
INSERT
VIDEO
AUDIO
AUDIO DUB
JOG/SHUTTLE
MARK IN
MARK OUT
INPUT SELECT
STEREO SELECT
VCR
PLAYER
RECORDER
COUNTER
RESET
ZERO STOP
SEARCH SELECT
INDEX/PHOTO
REC
REW
STOP
PLAY
FF
PAUSE/SLOW

Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings.
  See pages 50-57.

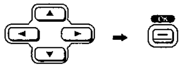
Example: Video Insert

Operations

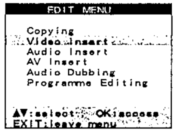
1 Press **EDIT MENU.**

2 Select **Video Insert**, and then Press **OK.**

To insert picture: Select **Video Insert.**
To insert sound: Select **Audio Insert.**
To insert picture and sound: Select **AV Insert.**



On Screen Display

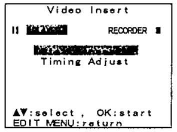


```
      EDIT MENU
   Copying
   Video Insert
   Audio Insert
   AV Insert
   Audio Dubbing
   Programme Editing

▲▼:select , OK:access
EXIT:leave menu
```

3 Press **PLAYER** and **JOG/SHUTTLE.**

- The picture from the playback unit appears on the screen.

PLAYER
JOG/SHUTTLE

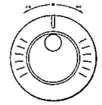


```
      Video Insert
II [illegible]        RECORDER ■
     [illegible]
     Timing Adjust

▲▼:select , OK:start
EDIT MENU:return
```

Note:

Video Insert and Audio Insert are not possible in the following cases:
When the tape in the recording VCR (the NV-DV10000) is:
Recorded in LP mode;
Blank, or contains a blank portion in the middle.

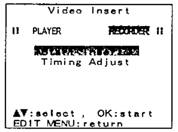
4 Search for the edit start point on the playback unit.



5 Press **RECORDER** and **JOG/SHUTTLE.**

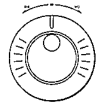
- The picture from the recording VCR appears on the screen.

RECORDER
JOG/SHUTTLE

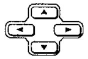


```
      Video Insert
II PLAYER         RECORDER II
     [illegible]
     Timing Adjust

▲▼:select , OK:start
EDIT MENU:return
```

6 Search for the edit start point on the recording VCR.

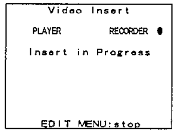


7 Select **Start Insert.**



8 Press **OK.**

- Editing begins.



```
      Video Insert
   PLAYER         RECORDER ●
   Insert in Progress



   EDIT MENU:stop
```

9 Press **EDIT MENU** to stop editing.

- Operation now returns to the screen which appears in step **3.** This makes it possible to continue with editing or change the point at which editing is to start.

10 Press **EXIT**

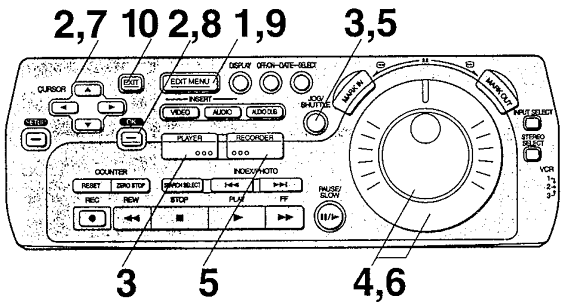
- The On Screen Display disappears.

Notes:

- **AV Insert is not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in 16bit audio mode;
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle.
  When **INPUT SELECT** is set to DV IN.
- In order to ensure that the editing operation is performed properly, the editing points should be set at least 20 seconds after the beginning of the tape.
- The pause operation may be indicated on the display of the playback unit even though the playback unit is actually playing the tape in slow motion.
- Up to ±1 second of slight deviation in the specified edit start position can be corrected. See page 90 for Edit Timing Adjustment.

Manual Audio Dubbing

This function is used to add new sound on the STEREO2 track of previously recorded tape.


2,7
10
2,8
1,9
3,5
3
5
4,6
CURSOR
EXIT
EDIT MENU
INSERT
VIDEO
AUDIO
AUDIO DUB
DISPLAY
OFF/ON–DATE–SELECT
JOG/SHUTTLE
MARK IN
MARK OUT
INPUT SELECT
STEREO SELECT
VCR
PLAYER
RECORDER
COUNTER
RESET
ZERO STOP
SEARCH SELECT
INDEX/PHOTO
REC
REW
STOP
PLAY
FF
PAUSE/SLOW

Preparations

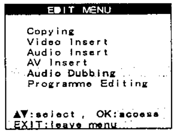
- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings. See pages 50-57.

Operations

1 Press **EDIT MENU**.

2 Select **Audio Dubbing**, and then Press **OK**.

On Screen Display

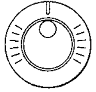


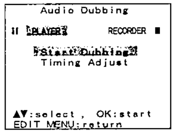
```
EDIT MENU
Copying
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Programme Editing

▲▼:select , OK:access
EXIT:leave menu
```

3 Press **PLAYER** and **JOG/SHUTTLE**.

- The picture from the playback unit appears on the screen.

4 Search for the edit start point on the playback unit.

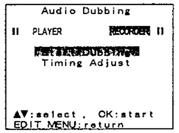




```
Audio Dubbing
II PLAYER          RECORDER ■
Start Dubbing
Timing Adjust

▲▼:select , OK:start
EDIT MENU:return
```

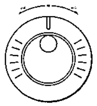
5 Press **RECORDER** and **JOG/SHUTTLE.**

- The picture from the recording VCR appears on the screen.



```
Audio Dubbing
II PLAYER          RECORDER II
Start Dubbing
Timing Adjust

▲▼:select , OK:start
EDIT MENU:return
```

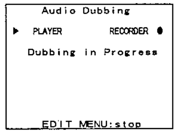
6 Search for the edit start point on the recording VCR.



7 Select **Start Dubbing.**

8 Press **OK.**

- Editing begins.



```
Audio Dubbing
▶ PLAYER          RECORDER ●
Dubbing in Progress

EDIT MENU:stop
```

9 Press **EDIT MENU** to stop editing.

- Operation now returns to the screen which appears in step **3**. This makes it possible to continue with editing or change the point at which editing is to start.

10 Press **EXIT.**

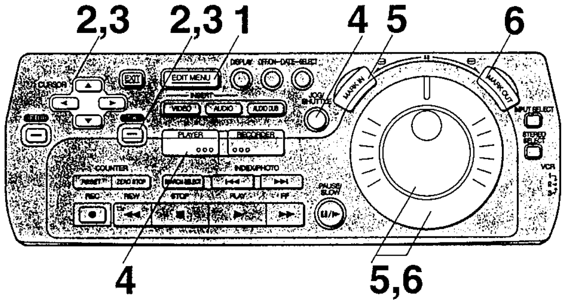
- The On Screen Display disappears.

Notes:

- **Audio Dubbing is not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in 16bit audio mode;
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle.
  When **INPUT SELECT** is set to DV IN.
- In order to ensure that the editing operation is performed properly, the editing points should be set at least 20 seconds after the beginning of the tape.
- The pause operation may be indicated on the display of the playback unit even though the playback unit is actually playing the tape in slow motion.
- Up to ±1 second of slight deviation in the specified edit start position can be corrected. See page 90 for Edit Timing Adjustment.

Programme Assemble

This function can be used to link together desired scenes on a tape.
This function can also be used to skip unnecessary scenes recorded on a tape and copy them onto a separate tape.



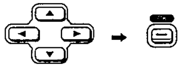
Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings. See pages 50-57.

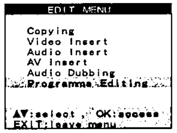
Operations

1 Press **EDIT MENU.**

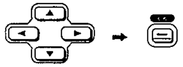
2 Select **Programme Editing**, and then Press **OK.**

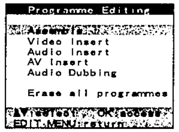


On Screen Display


EDIT MENU
Copying
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Programme Editing
▲▼:select , OK:access
EXIT:leave menu

3 Select **Assemble**, and then Press **OK.**

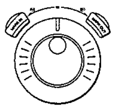


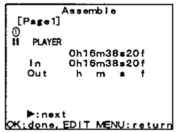

Programme Editing
Assemble
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Erase all programmes
▲▼:select , OK:access
EDIT MENU:return

4 Press **PLAYER** and **JOG/SHUTTLE**
- The picture from the playback unit appears on the screen.

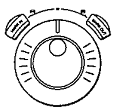
PLAYER
JOG/SHUTTLE

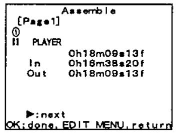
5 Search for the edit start point on the playback unit and press **MARK IN.**




Assemble
[Page1]
①
II PLAYER
0h16m38s20f
In 0h16m38s20f
Out h m s f
▶:next
OK:done, EDIT MENU:return

6 Search for the edit end point on the playback unit and press **MARK OUT.**




Assemble
[Page1]
①
II PLAYER
0h18m09s13f
In 0h16m38s20f
Out 0h18m09s13f
▶:next
OK:done, EDIT MENU:return

(Continued on next page)

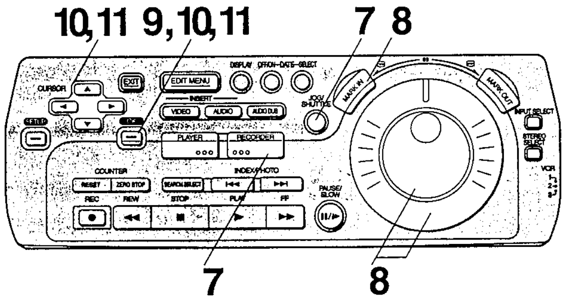
Notes:

- Programme Editing can be performed using either the tape counter or Time code display, but the Time code display should be used if the units are connected only by a DV cable.
- If you attempt to switch to the tape counter display in order to perform editing after setting the editing points using the Time code display, the Erase all programmes screen is displayed. (The Erase all programmes screen is also displayed when you change from the tape counter display to the Time code display.)
- After setting a programme, if you attempt to set another programme in a different editing operation, the set contents for the previous editing operation remain on the setting screen. In order to prevent editing errors, perform the Erase all programmes operation (page 87) whenever you set a programme under a different editing mode.
- Programme editing can not be performed with a movie camera that has a 4-digit counter.

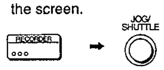
Notes:

- Although Assemble editing can be performed in LP mode, Insert, Audio Dubbing, and Audio Mixing cannot be performed with a tape recorded in LP mode. It is necessary to first copy the tape in SP mode.
- In order to ensure that the editing operation is performed properly, the editing points should be set at least 20 seconds after the beginning of the tape.
- The editing operation may not be performed correctly if the set duration of a programme is less than 4 seconds.
- On a video equipment whose Time code display or tape counter display does not show the frame value, the area where the frame value is displayed appears as "00f" or it remains blank.
With some units, the frame value may be displayed when **MARK IN** or **MARK OUT** is pressed in steps **5** and **6** even if the unit concerned does not show the frame value.

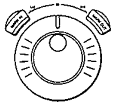
Programme Assemble (continued)


10,11
9,10,11
7
8
7
8
CURSOR
EXIT
EDIT MENU
DISPLAY
OFFON–DATE–SELECT
INSERT
VIDEO
AUDIO
AUDIO DUB
JOG/SHUTTLE
MARK IN
MARK OUT
INPUT SELECT
STEREO SELECT
VCR
PLAYER
RECORDER
COUNTER
RESET
ZERO STOP
SEARCH SELECT
INDEX/PHOTO
REC
REW
STOP
PLAY
FF
PAUSE/SLOW

7 Press **RECORDER** and **JOG/ SHUTTLE**
- The picture from the recording VCR appears on the screen.

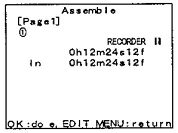

RECORDER
JOG/SHUTTLE

8 Search for the edit start point on the recording VCR and press **MARK IN**.

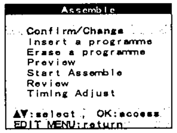


9 Press **OK**

On Screen Display



Assemble
[Page1]
①
RECORDER II
0h12m24s12f
In 0h12m24s12f
OK:do e, EDIT MENU:return



Assemble
Confirm/Change
Insert a programme
Erase a programme
Preview
Start Assemble
Review
Timing Adjust
▲▼:select , OK:access
EDIT MENU:return

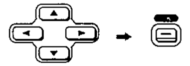
To check and change programmes:

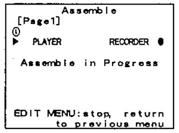
Select **Confirm/Change** and then press **OK.**
- To confirm, change, insert or erase editing programmes, see pages 86-87.
- Programmes cannot be inserted or erased through the recording unit.

To continue setting programmes:

1 Press **PLAYER.**
2 Using ►◄ , select the programme number.
The programme number changes each time these buttons are pressed.
(Up to 40 programmes can be set. 10 programmes can be set on one page; if this number is exceeded, the display automatically changes to the next page.)
3 Repeat steps **4-6.**

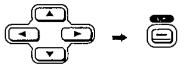
10 Select **Start Assemble** to start editing, and then press **OK.**
- Editing begins after the playback unit and the recording VCR both rewind their tapes to the edit start points.

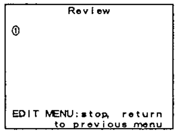




Assemble
[Page1]
①
► PLAYER RECORDER ●
Assemble in Progress
EDIT MENU:stop, return
to previous menu

11 After completing editing, select **Review**, and then press **OK.**
- The edited pictures are played back.





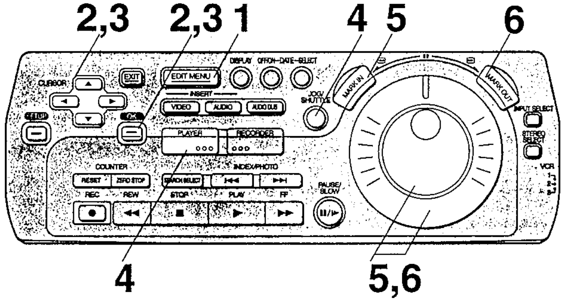
Review
①
EDIT MENU:stop, return
to previous menu

To interrupt editing or Review:
Press **EDIT MENU.**

Notes:
- The Preview function cannot be used with the Assemble function.
- Up to ±1 second of slight deviation in the specified edit start/end position can be corrected. See pages 88-89 for Edit Timing Adjustment.

Programme Insert

This function is used to replace the picture and sound on a recorded tape.



Preparations

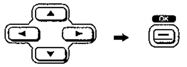
- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings. See pages 50-57.

Example: Video Insert

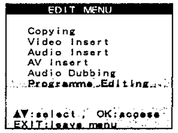
Operations

1 Press **EDIT MENU.**

2 Select **Programme Editing**, and then Press **OK.**



On Screen Display



EDIT MENU

Copying
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Programme Editing

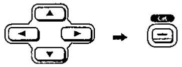
▲▼:select , OK:access
EXIT:leave menu

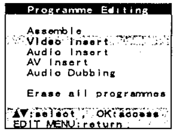
Notes:

- Programme Editing can be performed using either the tape counter or Time code display.
- If you attempt to switch to the tape counter display in order to perform editing after setting the editing points using the Time code display, the Erase all programmes screen is displayed.
  (The Erase all programmes screen is also displayed when you change from the tape counter display to the Time code display.)
- After seting a programme, if you attempt to set another programme in a different editing mode, the set contents for the previous editing mode remain on the setting screen. In order to prevent editing errors, perform the Erase all programmes operation (page 87) whenever you set a programme under a different editing mode.
- Programme Editing can not be performed with a movie camera that has a 4-digit counter.
- **Video Insert and Audio Insert are not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle.

3 Select the desired editing operation, and then press **OK.**

To insert picture: **Video Insert.**
To insert sound: **Audio Insert.**
To insert picture and sound: **AV Insert.**





Programme Editing

Assemble
Video Insert
Audio Insert
AV Insert
Audio Dubbing

Erase all programmes

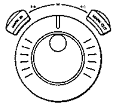
▲▼:select , OK:access
EDIT MENU:return

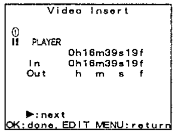
4 Press **PLAYER** and **JOG/SHUTTLE**

- The picture from the playback unit appears on the screen.

PLAYER
JOG/SHUTTLE

5 Search for the edit start point on the playback unit and press **MARK IN.**



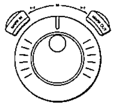


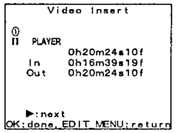
Video Insert

PLAYER
0h16m39s19f
In 0h16m39s19f
Out h m s f

▶:next
OK:done, EDIT MENU:return

6 Search for the edit end point on the playback unit and press **MARK OUT.**





Video Insert

PLAYER
0h20m24s10f
In 0h16m39s19f
Out 0h20m24s10f

▶:next
OK:done, EDIT MENU:return

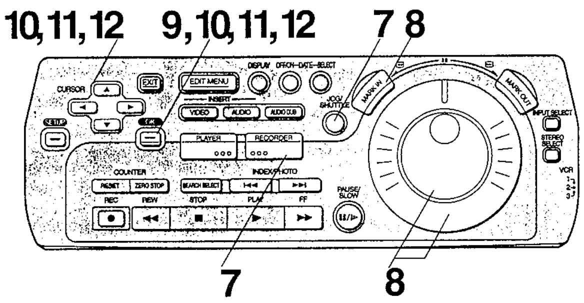
(Continued on next page)

- **AV Insert is not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in 16bit audio mode;
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle.
  When **INPUT SELECT** is set to DV IN.

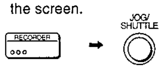
Notes on editing point setting

- The Programme Insert and Audio Dubbing functions require the setting of only three editing points: the in and out points on the playback unit and the in point on the recording unit, or the in point on the playback unit and the in and out points on the recording unit.
- If both in and out points are set on both the playback unit and the recording unit, and the times between the points do not match, editing stops at the first out point that is reached.
- In order to ensure that the editing operation is performed properly, the editing points should be set at least 20 seconds after the beginning of the tape.
- The editing operation may not be performed correctly if the set duration of a programme is less than 4 seconds.
- On a video equipment whose Time code display or tape counter display does not show the frame value, the area where the frame value is displayed appears as "00f" or it remains blank.
  With some units, the frame value may be displayed when **MARK IN** or **MARK OUT** is pressed in steps **5** and **6** even if the unit concerned does not show the frame value.

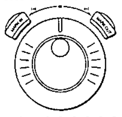
Programme Insert (continued)


10,11,12
9,10,11,12
7
8
7
8
CURSOR
EXIT
EDIT MENU
DISPLAY
CH/CH-DATE-SELECT
INSERT
VIDEO
AUDIO
AUDIO DUB
OK
SETUP
PLAYER
RECORDER
JOG/SHUTTLE
MARK IN
MARK OUT
INPUT SELECT
STEREO SELECT
VCR
COUNTER
INDEX/PHOTO
RESET
ZERO STOP
SEARCH SELECT
REC
REW
STOP
PLAY
FF
PAUSE/SLOW

7 Press **RECORDER** and **JOG/ SHUTTLE**
- The picture from the recording VCR appears on the screen.


RECORDER
JOG/SHUTTLE

8 Search for the edit start point on the recording VCR and press **MARK IN.**



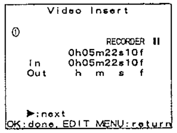
9 Press **OK**

To check and change programmes:

Select **Confirm/Change** and then press **OK.**
- To confirm, change, insert or erase editing programmes, see pages 86-87.

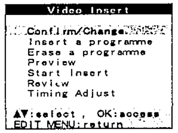
To continue setting programmes:
1 Press **PLAYER.**
2 Using ▶◀ , select the programme number. The programme number changes each time these buttons are pressed. Up to 10 programmes can be set.
3 Repeat steps **4-8.**

On Screen Display



Video Insert
①
RECORDER ❚❚
0h05m22s10f
In 0h05m22s10f
Out h m s f

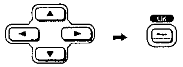
▶:next
OK:done, EDIT MENU:return

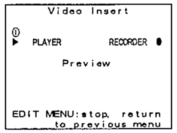


Video Insert
Confirm/Change
Insert a programme
Erase a programme
Preview
Start Insert
Review
Timing Adjust

▲▼:select , OK:access
EDIT MENU:return

10 Select **Preview** to confirm the editing operation before performing actual editing, and then press **OK.**
- Preview begins after the playback unit and the recording VCR both rewind their tapes to the edit start points.

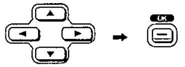


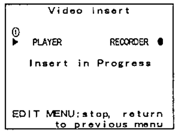


Video Insert
①
▶ PLAYER RECORDER ●
Preview

EDIT MENU:stop, return
to previous menu

11 Select **Start Insert** to start editing, and then press **OK.**
- Editing begins after the playback unit and the recording VCR both rewind their tapes to the edit start points.

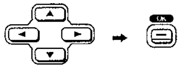


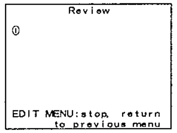


Video Insert
①
▶ PLAYER RECORDER ●
Insert in Progress

EDIT MENU:stop, return
to previous menu

12 After completing editing, select **Review,** and then press **OK.**
- The edited pictures are played back.





Review
①

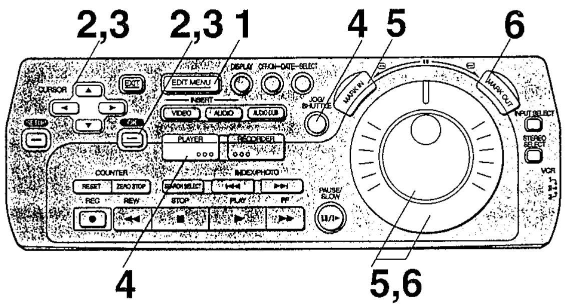
EDIT MENU:stop, return
to previous menu

To interrupt editing, Preview or Review:
Press **EDIT MENU.**

Note:
Up to ±1 second of slight deviation in the specified edit start/end position can be corrected. See pages 88-89 for Edit Timing Adjustment.

Programme Audio Dubbing

This function is used to add new sound on the STEREO2 track of previously recorded tape.

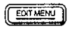


Preparations

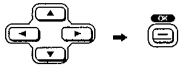
- Confirm that the TV is on and the VCR viewing channel is selected.
- Complete necessary connections and settings. See pages 50-57.

Operations

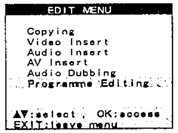
1 Press **EDIT MENU.**



2 Select **Programme Editing**, and then Press **OK.**



On Screen Display

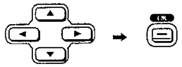


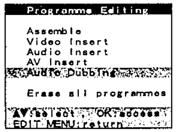
```
EDIT MENU

Copying
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Programme Editing

▲▼:select , OK:access
EXIT:leave menu
```

Notes:

- Programme Editing can be performed using either the tape counter or Time code display.
- If you attempt to switch to the tape counter display in order to perform editing after setting the editing points using the Time code display, the Erase all programmes screen is displayed.
  (The Erase all programmes screen is also displayed when you change from the tape counter display to the Time code display.)
- Programme editing can not be performed with a movie camera that has a 4-digit counter.
- After setting a programme, if you attempt to set another programme in a different editing mode, the set contents for the previous editing mode remain on the setting screen. In order to prevent editing errors, perform the Erase all programmes operation (page 87) whenever you set a programme under a different editing mode.
- **Audio Dubbing is not possible in the following cases:**
  When the tape in the recording VCR (the NV-DV10000) is:
  Recorded in 16bit audio mode;
  Recorded in LP mode;
  Blank, or contains a blank portion in the middle
  When **INPUT SELECT** is set to DV IN.

3 Select **Audio Dubbing**, and then press **OK.**

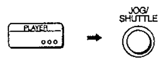




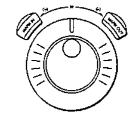
```
Programme Editing

Assemble
Video Insert
Audio Insert
AV Insert
Audio Dubbing

Erase all programmes

▲▼:select , OK:access
EDIT MENU:return
```

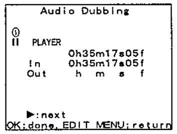
4 Press **PLAYER** and **JOG/SHUTTLE**

- The picture from the playback unit appears on the screen.



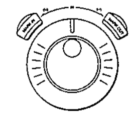
5 Search for the edit start point on the playback unit and press **MARK IN.**

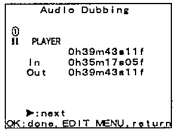




```
Audio Dubbing

①
II  PLAYER
            0h35m17s05f
  In        0h35m17s05f
  Out        h  m  s  f

  ▶:next
OK:done, EDIT MENU:return
```

6 Search for the edit end point on the playback unit and press **MARK OUT.**





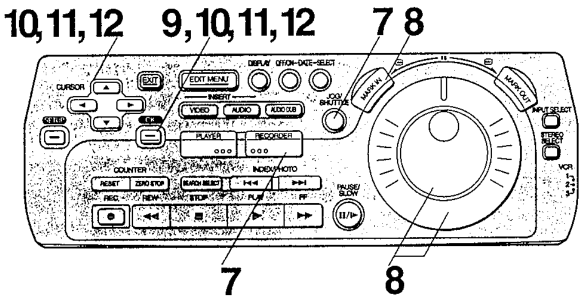
```
Audio Dubbing

①
II  PLAYER
            0h39m43s11f
  In        0h35m17s05f
  Out       0h39m43s11f

  ▶:next
OK:done, EDIT MENU,return
```

(Continued on next page)

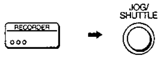
Notes on editing point setting

- The Programme Insert and Audio Dubbing functions require the setting of only three editing points: the in and out points on the playback unit and the in point on the recording unit, or the in point on the playback unit and the in and out points on the recording unit.
- If both in and out points are set on both the playback unit and the recording unit, and the times between the points do not match, editing stops at the first out point that is reached.
- In order to ensure that the editing operation is performed properly, the editing points should be set at least 20 seconds after the beginning of the tape.
- The editing operation may not be performed correctly if the set duration of a programme is less than 4 seconds.
- On a video equipment whose Time code display or tape counter display does not show the frame value, the area where the frame value is displayed appears as "00f" or it remains blank.
  With some units, the frame value may be displayed when **MARK IN** or **MARK OUT** is pressed in steps **5** and **6** even if the unit concerned does not show the frame value.

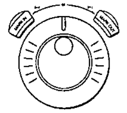
Programme Audio Dubbing (continued)


10,11,12
9,10,11,12
7
8
CURSOR
EXIT
SET UP
OK
EDIT MENU
DISPLAY
OFF/ON-DATE-SELECT
INSERT
VIDEO
AUDIO
AUDIO DUB
JOG/SHUTTLE
MARK IN
MARK OUT
INPUT SELECT
STEREO SELECT
PLAYER
RECORDER
COUNTER
INDEX/PHOTO
RESET
ZERO STOP
SEARCH SELECT
REC
REW
STOP
PLAY
FF
PAUSE/SLOW
VCR
7
8

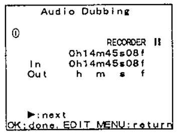
7 Press **RECORDER** and **JOG/ SHUTTLE**
- The picture from the recording VCR appears on the screen.


RECORDER
JOG/SHUTTLE

8 Search for the edit start point on the recording VCR and press **MARK IN**.



On Screen Display

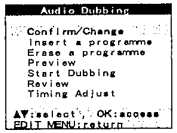


```
Audio Dubbing
①
                  RECORDER ⏸
          0h14m45s08f
  In      0h14m45s08f
  Out       h   m   s   f

  ▶:next
OK:done, EDIT MENU:return
```

9 Press OK

To check and change programmes:

Select **Confirm/Change** and then press **OK**.
- To confirm, change, insert or erase editing programmes, see pages 86-87.

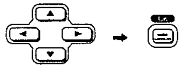


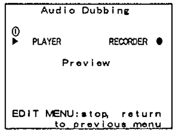
```
Audio Dubbing
 Confirm/Change
 Insert a programme
 Erase a programme
 Preview
 Start Dubbing
 Review
 Timing Adjust

▲▼:select,  OK:access
EDIT MENU:return
```

To continue setting programmes:

1 Press **PLAYER.**
2 Using ▶◀ , select the programme number.
The programme number changes each time these buttons are pressed.
Up to 10 programmes can be set.
3 Repeat steps **4-8.**

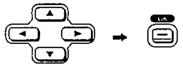
10 Select **Preview** to confirm the editing operation before performing actual editing, and then press **OK.**
- Preview begins after the playback unit and the recording VCR both rewind their tapes to the edit start points.

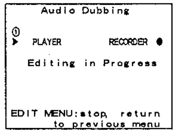




```
Audio Dubbing
①
▶ PLAYER          RECORDER ●
        Preview

EDIT MENU:stop, return
         to previous menu
```

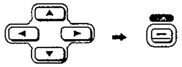
11 Select **Start Dubbing** to start editing, and then press **OK.**
- Editing begins after the playback unit and the recording VCR both rewind their tapes to the edit start points.

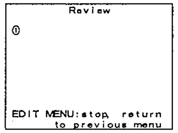




```
Audio Dubbing
①
▶ PLAYER          RECORDER ●
   Editing in Progress

EDIT MENU:stop, return
         to previous menu
```

12 After completing editing, select **Review,** and then press **OK.**
- The edited sounds are played back.





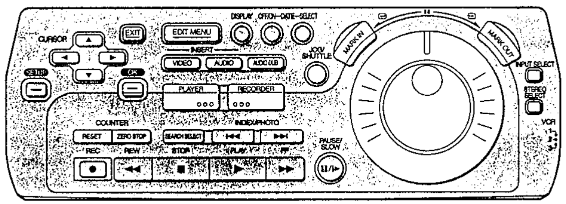
```
          Review
①



EDIT MENU:stop, return
         to previous menu
```

To interrupt editing, Preview or Review:
Press **EDIT MENU.**

Note:
Up to ±1 second of slight deviation in the specified edit start/end position can be corrected. See pages 88-89 for Edit Timing Adjustment.

Other Editing Functions

These functions are used to confirm, change, etc. programmes.

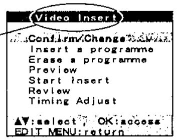


Once all programme settings are completed, the screen shown at right is displayed.

Example: Video Insert

This portion varies, depending on the editing function that was programmed.

On Screen Display



```
Video Insert
Confirm/Change
Insert a programme
Erase a programme
Preview
Start Insert
Review
Timing Adjust

▲▼:select  OK:access
EDIT MENU:return
```

• •

To check/change programmes:

1 Select **Confirm/Change**, and then press **OK**.
- The programme list for the playback unit is displayed.

To check the programme list for the recording unit, press **RECORDER.**
To just confirm the programme settings, press **EDIT MENU.**
If corrections are needed, continue with the procedure described below.

2 Select the programme number for which changes are to be made, and then press **OK**.
- The Programme Change screen for the selected programme number is displayed.

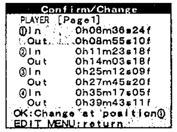
3 Press **JOG/SHUTTLE.**

4 Use the Jog Dial/Shuttle Ring to search for the editing point that is to be corrected.

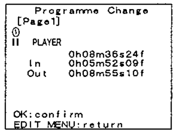
5 To change an edit start point, press **MARK IN.**
To change an edit end point, press **MARK OUT.**

6 Once all changes are completed, press **OK.**

• •



```
Confirm/Change
PLAYER [Page1]
①In    0h08m36s24f
 Out   0h08m55s10f
②In    0h11m23s18f
 Out   0h14m03s18f
③In    0h25m12s09f
 Out   0h27m45s20f
④In    0h35m17s05f
 Out   0h39m43s11f
OK:Change at position①
EDIT MENU:return
```



```
Programme Change
[Page1]
①
II  PLAYER
          0h08m36s24f
  In      0h05m52s09f
  Out     0h08m55s10f

OK:confirm
EDIT MENU:return
```

• •

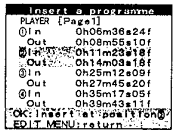
To insert a new programme between existing programmes:

1 Select **Insert a programme**, and then press **OK.**
- The programme list is displayed.

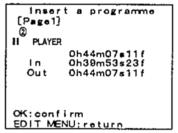
2 Select the programme number where a programme is to be inserted, and then press **OK.**
- The Insert a programme screen is displayed.

3 Refer to the pages that describe the Programme Editing functions (on pages 74-85), and set the new programme.

4 When setting is complete, press **OK.**



```
Insert a programme
PLAYER [Page1]
①In    0h06m36s24f
 Out   0h08m55s10f
②In    0h11m23s18f
 Out   0h14m03s18f
③In    0h25m12s09f
 Out   0h27m45s20f
④In    0h35m17s05f
 Out   0h39m43s11f
OK:Insert at position②
EDIT MENU:return
```



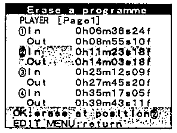
```
Insert a programme
[Page1]
②
II  PLAYER
          0h44m07s11f
  In      0h39m53s23f
  Out     0h44m07s11f

OK:confirm
EDIT MENU:return
```

• •

To cancel a programme:

1 Select **Erase a programme,** and then press **OK.**
- The programme list is displayed.

2 Select the programme number to be erased, and then press **OK.**



```
Erase a programme
PLAYER [Page1]
①In    0h06m36s24f
 Out   0h08m55s10f
②In    0h11m23s18f
 Out   0h14m03s18f
③In    0h25m12s09f
 Out   0h27m45s20f
④In    0h35m17s05f
 Out   0h39m43s11f
OK:erase at position②
EDIT MENU:return
```

• •

To cancel all editing programmes:

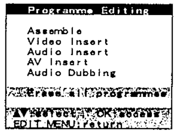
1 Press **EDIT MENU** twice.

2 Select **Programme Editing**, and then press **OK.**

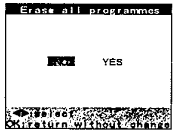
3 Select **Erase all programmes,** and then press **OK.**
- The Erase all programmes screen is displayed.

4 Select **YES,** and then press **OK.**
- The screen returns to the Programme Editing menu.
- After the message indicating that **"All programmes have been erased."** appears on the screen, operation returns to the EDIT MENU screen.

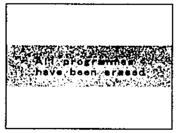
If the EDIT MENU screen is cancelled before the above procedure is performed, the method for displaying the Programme Editing changes.
Press **EDIT MENU** so that the EDIT MENU screen is displayed. Use to select **Programme Editing,** and then press **OK.**



```
Programme Editing
  Assemble
  Video Insert
  Audio Insert
  AV Insert
  Audio Dubbing
Erase all programmes
▲▼:select  OK:access
EDIT MENU:return
```



```
Erase all programmes

   NO      YES

◀▶:select
OK:return without change
```



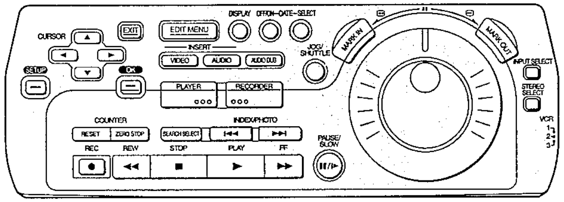
```
All programmes
have been erased
```

• •

Note:
Programmes set in the recording unit for the Assemble editing function cannot be inserted or erased.

Edit Timing Adjustment

When perfoming editing in conjunction with a unit which has a different machanism, there may be a lag in the edit start point due to a deviation between the time a pause cancellation signal is received by the recording unit and the time recording actually begins.
Edit Timing Adjustment is used to compensate the edit start and end time in light of this start-up time deviation.



Programme Editing

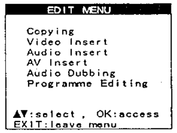
After setting edit start/end points, the actual editing operation may start slightly before or slightly after the position that was set, depending on the equipment that is connected. The procedure described below can adjust the edit timing in order to correct for errors of up to ±1 second in the edit start points and edit end points on the playback unit.

Example: Video Insert

1 Press **EDIT MENU.**

2 Select **Programme Editing**, and then Press **OK.**

On Screen Display

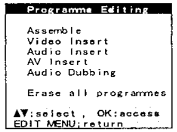


```
EDIT MENU
Copying
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Programme Editing

▲▼:select , OK:access
EXIT:leave menu
```

Notes:

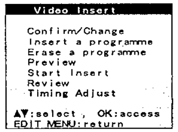
- The procedure described on these pages is to be performed after exiting the EDIT MENU screen. If this procedure is performed after having executed Start Editing or Review, start this procedure from step **4** on the Video Insert (Assemble, Audio Insert, AV Insert or Audio Dubbing) screen.
- The adjusted frame unit is applied to all of the programmes that have been set at the moment when the adjustment is made.

3 Select desired editing operation, and then press **OK** twice.



```
Programme Editing
Assemble
Video Insert
Audio Insert
AV Insert
Audio Dubbing

Erase all programmes

▲▼:select , OK:access
EDIT MENU:return
```

4 Select **Timing Adjust**, and then press **OK.**



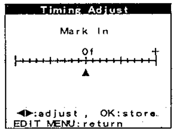
```
Video Insert
Confirm/Change
Insert a programme
Erase a programme
Preview
Start Insert
Review
Timing Adjust

▲▼:select , OK:access
EDIT MENU:return
```

5 Adjust the timing for the edit start point by setting the amount of the discrepancy for the start-up time.

- The setting is displayed in frames (1/25 of a second) units.

Press ▶ if the start point is too early; press ◀ if it is too late.

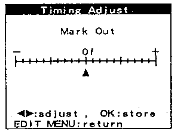
- Each time the button is pressed, the tape moves by 1 frame.
- Corrections can be made in the range of ± 30 frames.



```
Timing Adjust
Mark In
0f
▲
◀▶:adjust , OK:store
EDIT MENU:return
```

6 Press **OK.**

7 Adjust the timing for the edit end point in same way.

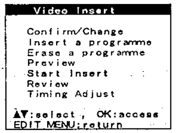


```
Timing Adjust
Mark Out
−      0f      +
▲
◀▶:adjust , OK:store
EDIT MENU:return
```

8 Press **OK.**

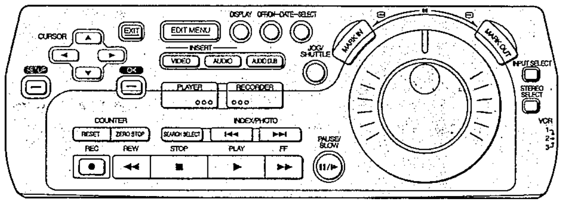
9 Select **Start Insert (Assemble or Dubbing)**, and then press **OK.**

- If the results of editing indicate that the adjustment is inadequate, repeat steps **4-8.**



```
Video Insert
Confirm/Change
Insert a programme
Erase a programme
Preview
Start Insert
Review
Timing Adjust

▲▼:select , OK:access
EDIT MENU:return
```

Edit Timing Adjustment (continued)

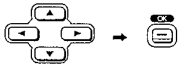


Manual Editing

If there is a deviation in the results of a manual editing operation, the timing of the edit start (In) position on the playback unit can be adjusted by approximately ± 1 second. Perform the procedure described below when setting an edit start point in any editing mode.

Example: Manual Copying

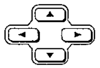
1 Select **Timing Adjust**, and then press **OK.**



2 Adjust the timing for the edit start point by setting the amount of the discrepancy for the start-up time.

- The setting is displayed in frames (1/25 of a second) units.

Press ▶ if the start point is too early; press ◀ if it is too late.

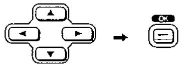


- Each time the button is pressed, the tape moves by 1 frame.
- Corrections can be made in the range of ± 30 frames.

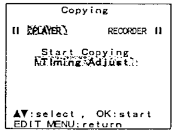
3 Press **OK.**

4 Select **Start Copying (Insert, Dubbing)**, and then press **OK.**

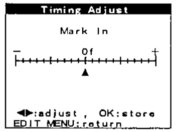
- If the results of editing indicate that the adjustment is inadequate, repeat steps **1-3**.



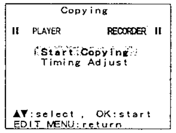
On Screen Display



Copying
II PLAYER RECORDER II
Start Copying
Timing Adjust
▲▼:select , OK:start
EDIT MENU:return



Timing Adjust
Mark In
– 0f +
◀▶:adjust , OK:store
EDIT MENU:return



Copying
II PLAYER RECORDER II
Start Copying
Timing Adjust
▲▼:select , OK:start
EDIT MENU:return

On Screen Display Messages

Before requesting service, check the following points once again.
The error message is indicated in brackets [ ].

These messages are displayed in the language that is set for On Screen Display.

[This action is not possible before time and date are set.]
☞ **SHOWVIEW** or **CHECK** is pressed when the date and time are not set. Set date and time.

[Please insert video tape!]
☞ **REC (REC/OTR), DIRECT TV REC, ▷ (PLAY), ▶▶ (FAST FORWARD)** or **◀◀ (REWIND)** is pressed when no cassette is in the VCR. Insert a video cassette.

[Recording not allowed.Check setting of the record-prevention tab.]
☞ **REC (REC/OTR)** or **DIRECT TV REC** has been pressed when using a cassette with the opened record-prevention tab. Use a cassette with the closed record-prevention tab.

[No timer programmes to be done!]
☞ **TIMER REC** was pressed even though nothing has been programmed. Programme a timer recording.

[Please put VCR into stop mode first.]
☞ Changes to programming details were attempted during timer recording.

Messages of On Screen Display for Editing Operations

These messages are displayed in English regardless of the set for On Screen Display.

[Please insert video tape!]
☞ **REC (REC/OTR), ▷ (PLAY)** or **JOG/SHUTTLE** has been pressed when the editing operation using EDIT MENU screen is performed in the VCR. Insert a video cassette.

[Recording not allowed.Check setting of the record-prevention tab.]
☞ **REC (REC/OTR)** has been pressed when using a cassette with the opened record-prevention tab. Use a cassette with a closed record-prevention tab.

[This function cannot be made in the blank part of the tape.]
☞ Are you trying to edit using a blank tape, or a tape that contains a blank segment in the middle?
Editing is not possible in blank segments (because there are no Time codes). In order to use such a tape for editing, copy the tape once so that continuous Time codes are recorded on the tape, even if there is nothing else recorded on the tape.

[This function is not allowed in LP-recorded section of the tape.]
☞ It is not possible to edit a tape that was recorded in LP mode, or that was recorded partly in SP mode and partly in LP mode. Make a copy of the tape in SP mode and then use that tape.

[This function cannot be made with 16bit mode audio recording.]
☞ Does the audio mode change in the middle of the tape?
The Audio Dubbing and AV Insert functions can only be used on a tape that was recorded in 12bit audio mode.

[Copying of this material is not allowed.]
☞ Tapes which contain copy protection codes cannot be edited, whether in the playback unit or the recording unit.

[EDITING cannot be made. Please check switches setting and cables.]
☞ Are the necessary cables for controlling the playback unit (Edit cable, LANC cable, DV cable) connected?
☞ Is the playback unit turned off?
☞ Are **EDIT MODE, EDIT CONTROL**, and the **INPUT SELECT** setting on the NV-DV10000 set properly for the desired editing operation?
☞ Is there more than one digital video device (including personal computers) connected to the NV-DV10000?
☞ Are the NV-DV10000 and the unit connected to the NV-DV10000 both set to control each other (if the connected unit is a digital video device)?

[Audio Dubbing or Audio Mixing cannot be made with DV input mode.]
☞ Audio Dubbing and Audio Mixing functions will not work if **INPUT SELECT** is set to DV IN. Set to A2 or A3.

[AV Insert cannot be made with DV input mode.]
☞ AV Insert will not work if **INPUT SELECT** is set to DV IN. Set to A2 or A3.

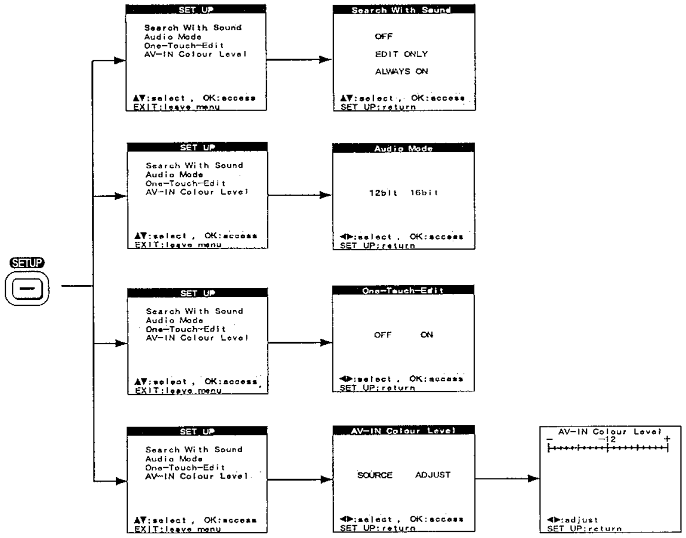
[Please select DV input mode.]
☞ Is **EDIT CONTROL** set to DV, but **INPUT SELECT** is set to something other than DV IN?

[This tape is an incorrect type. Please replace the tape.]
☞ A video cassette tape other than a DV or MINI DV cassette has been inserted.
DVC PRO cassettes cannot be used with the NV-DV10000.

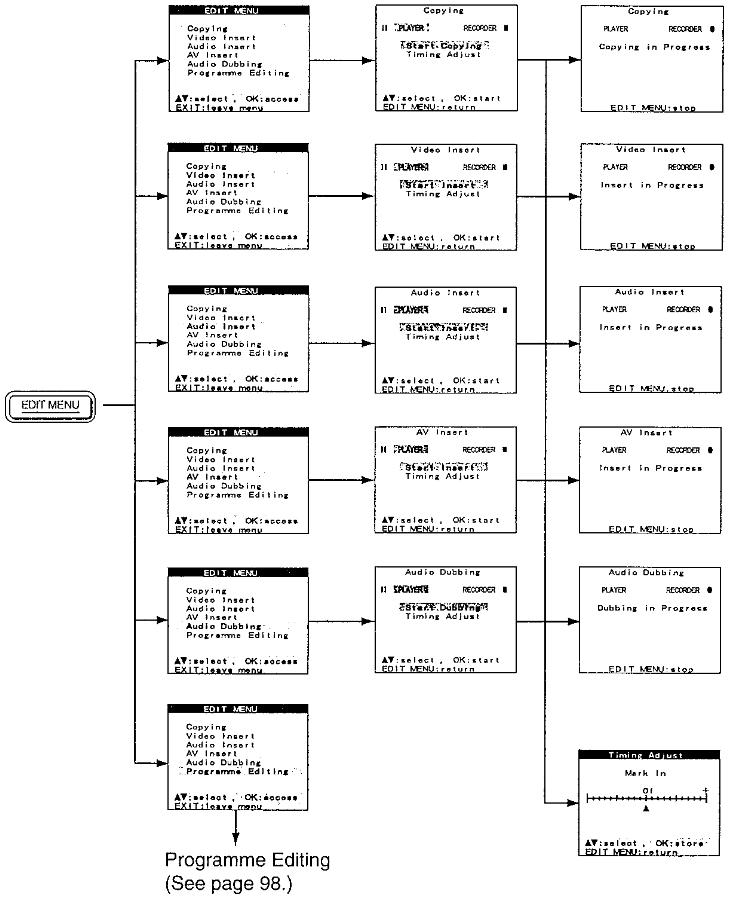
Other messages may also appear.
Follow the instructions in the message.

Flow Chart for On Screen Displays

SET UP On Screen Display

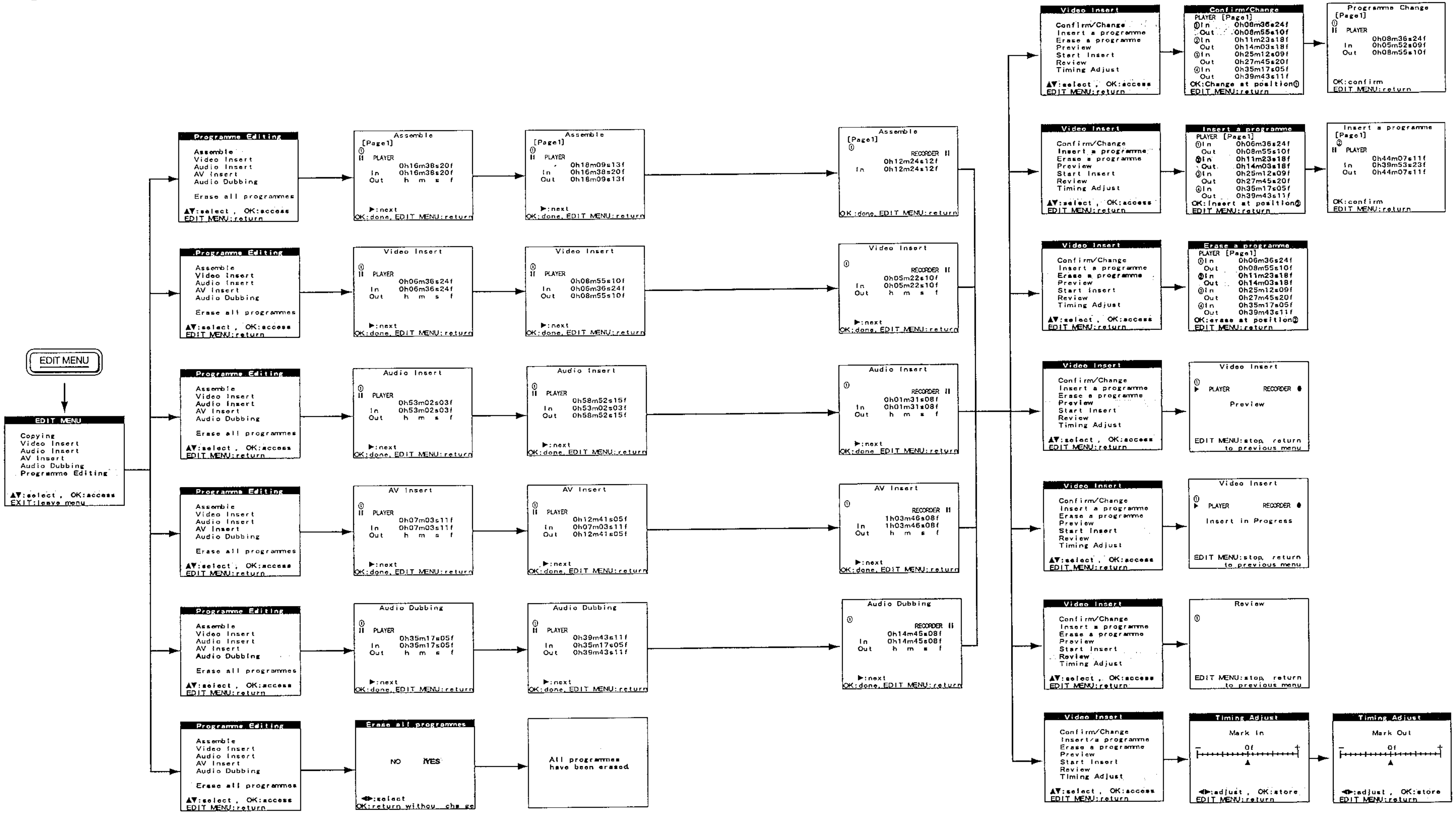

SETUP
SET UP
Search With Sound
Audio Mode
One-Touch-Edit
AV-IN Colour Level
▲▼:select , OK:access
EXIT:leave menu
Search With Sound
OFF
EDIT ONLY
ALWAYS ON
SET UP:return
Audio Mode
12bit 16bit
◀▶:select , OK:access
One-Touch-Edit
OFF ON
AV-IN Colour Level
SOURCE ADJUST
AV-IN Colour Level
− −12 +
◀▶:adjust
SET UP:return

EDIT MENU On Screen Display (Manual Editing)


EDIT MENU
EDIT MENU
Copying
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Programme Editing
▲▼:select , OK:access
EXIT:leave menu
Copying
II PLAYER RECORDER ■
Start Copying
Timing Adjust
▲▼:select , OK:start
EDIT MENU:return
Video Insert
Start Insert
Audio Insert
AV Insert
Audio Dubbing
Start Dubbing
PLAYER RECORDER ●
Copying in Progress
Insert in Progress
Dubbing in Progress
EDIT MENU:stop
Timing Adjust
Mark In
0f
▲▼:select , OK:store
EDIT MENU:return
Programme Editing
(See page 98.)

Flow Chart for On Screen Displays (continued)

Programme Editing On Screen Display


EDIT MENU
EDIT MENU
Copying
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Programme Editing
▲▼:select , OK:access
EXIT:leave menu
Programme Editing
Assemble
Video Insert
Audio Insert
AV Insert
Audio Dubbing
Erase all programmes
▲▼:select , OK:access
EDIT MENU:return
Assemble
[Page1]
①
II PLAYER
0h16m38s20f
In 0h16m38s20f
Out h m s f
▶:next
OK:done, EDIT MENU:return
Assemble
[Page1]
①
II PLAYER
0h18m09s13f
In 0h16m38s20f
Out 0h18m09s13f
▶:next
OK:done, EDIT MENU:return
Assemble
[Page1]
①
RECORDER II
0h12m24s12f
In 0h12m24s12f
OK:done, EDIT MENU:return
Video Insert
①
II PLAYER
0h06m36s24f
In 0h06m36s24f
Out h m s f
▶:next
OK:done, EDIT MENU:return
Video Insert
①
II PLAYER
0h08m55s10f
In 0h06m36s24f
Out 0h08m55s10f
▶:next
OK:done, EDIT MENU:return
Video Insert
①
RECORDER II
0h05m22s10f
In 0h05m22s10f
Out h m s f
▶:next
OK:done, EDIT MENU:return
Audio Insert
①
II PLAYER
0h53m02s03f
In 0h53m02s03f
Out h m s f
▶:next
OK:done, EDIT MENU:return
Audio Insert
①
II PLAYER
0h58m52s15f
In 0h53m02s03f
Out 0h58m52s15f
▶:next
OK:done, EDIT MENU:return
Audio Insert
①
RECORDER II
0h01m31s08f
In 0h01m31s08f
Out h m s f
▶:next
OK:done EDIT MENU:return
AV Insert
①
II PLAYER
0h07m03s11f
In 0h07m03s11f
Out h m s f
▶:next
OK:done, EDIT MENU:return
AV Insert
①
II PLAYER
0h12m41s05f
In 0h07m03s11f
Out 0h12m41s05f
▶:next
OK:done, EDIT MENU:return
AV Insert
①
RECORDER II
1h03m46s08f
In 1h03m46s08f
Out h m s f
▶:next
OK:done, EDIT MENU:return
Audio Dubbing
①
II PLAYER
0h35m17s05f
In 0h35m17s05f
Out h m s f
▶:next
OK:done, EDIT MENU:return
Audio Dubbing
①
II PLAYER
0h39m43s11f
In 0h35m17s05f
Out 0h39m43s11f
▶:next
OK:done, EDIT MENU:return
Audio Dubbing
①
RECORDER II
0h14m45s08f
In 0h14m45s08f
Out h m s f
▶:next
OK:done, EDIT MENU:return
Erase all programmes
NO YES
◀▶:select
OK:return withou chg ge
All programmes have been erased
Video Insert
Confirm/Change
Insert a programme
Erase a programme
Preview
Start Insert
Review
Timing Adjust
▲▼:select , OK:access
EDIT MENU:return
Confirm/Change
PLAYER [Page1]
①In 0h08m36s24f
Out 0h08m55s10f
②In 0h11m23s18f
Out 0h14m03s18f
③In 0h25m12s09f
Out 0h27m45s20f
④In 0h35m17s05f
Out 0h39m43s11f
OK:Change at position①
EDIT MENU:return
Programme Change
[Page1]
①
II PLAYER
0h08m36s24f
In 0h05m52s09f
Out 0h08m55s10f
OK:confirm
EDIT MENU:return
Insert a programme
PLAYER [Page1]
①In 0h06m36s24f
Out 0h08m55s10f
②In 0h11m23s18f
Out 0h14m03s18f
③In 0h25m12s09f
Out 0h27m45s20f
④In 0h35m17s05f
Out 0h39m43s11f
OK:Insert at position②
EDIT MENU:return
Insert a programme
[Page1]
②
II PLAYER
0h44m07s11f
In 0h39m53s23f
Out 0h44m07s11f
OK:confirm
EDIT MENU:return
Erase a programme
PLAYER [Page1]
①In 0h06m36s24f
Out 0h08m55s10f
②In 0h11m23s18f
Out 0h14m03s18f
③In 0h25m12s09f
Out 0h27m45s20f
④In 0h35m17s05f
Out 0h39m43s11f
OK:erase at position②
EDIT MENU:return
Video Insert
①
▶ PLAYER RECORDER ●
Preview
EDIT MENU:stop, return to previous menu
Video Insert
①
▶ PLAYER RECORDER ●
Insert in Progress
EDIT MENU:stop, return to previous menu
Review
①
EDIT MENU:stop, return to previous menu
Timing Adjust
Mark In
− 0f +
◀▶:adjust , OK:store
EDIT MENU:return
Timing Adjust
Mark Out
− 0f +
◀▶:adjust , OK:store
EDIT MENU:return

SECTION 2
ADJUSTMENT PROCEDURES

1. Disassembly/Assembly Procedures for cabinet parts, C.B.A. and Mechanism Unit

1-1. Disassemble Flow Chart for cabinet parts, C.B.A. and Mechanism Unit.

This flow chart indicates the disassembly steps the cabinet parts, C.B.A. and Mechanism Unit in order to access to items to be serviced. When reinstalling, perform the steps in reverse order.

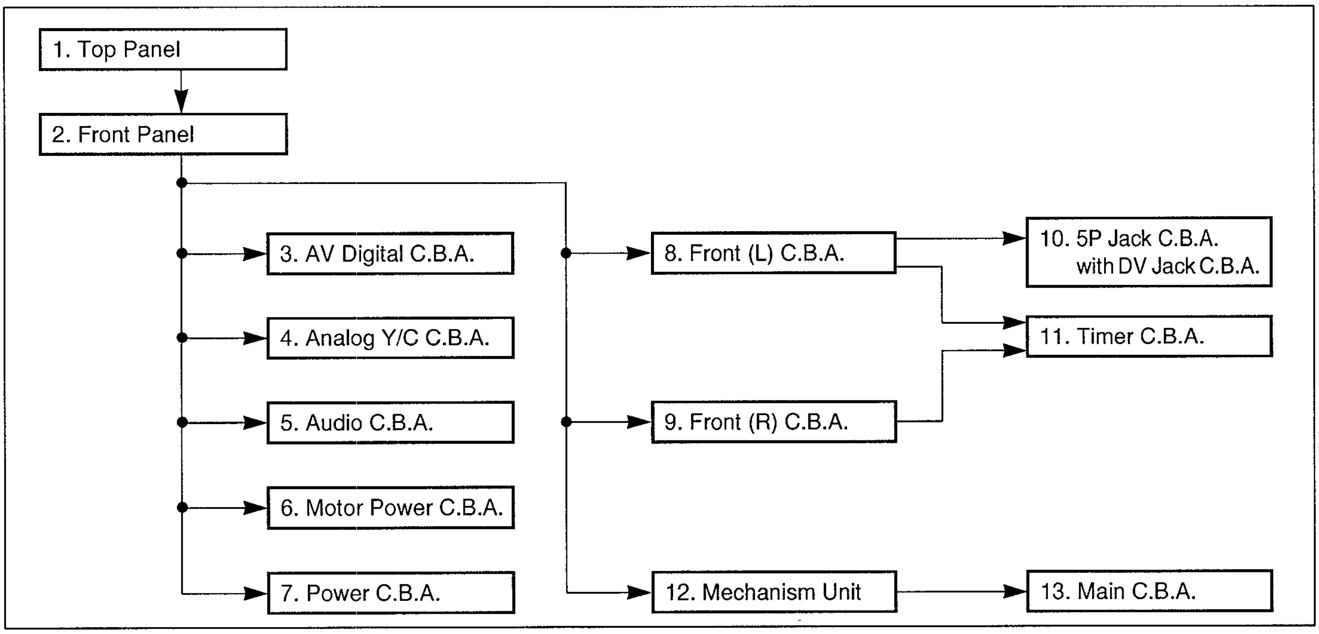

1. Top Panel
2. Front Panel
3. AV Digital C.B.A.
4. Analog Y/C C.B.A.
5. Audio C.B.A.
6. Motor Power C.B.A.
7. Power C.B.A.
8. Front (L) C.B.A.
9. Front (R) C.B.A.
10. 5P Jack C.B.A. with DV Jack C.B.A.
11. Timer C.B.A.
12. Mechanism Unit
13. Main C.B.A.

Fig. 1-1 Flow Chart

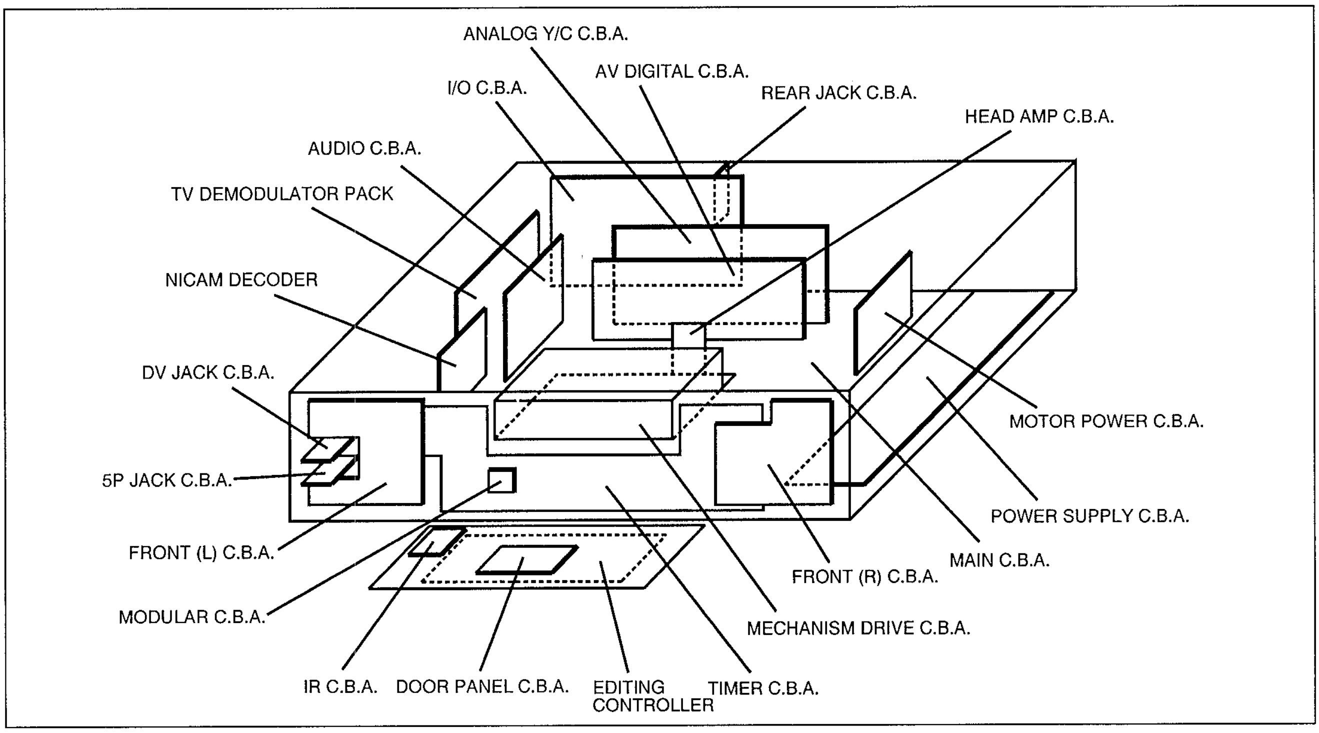

ANALOG Y/C C.B.A.
AV DIGITAL C.B.A.
I/O C.B.A.
REAR JACK C.B.A.
HEAD AMP C.B.A.
AUDIO C.B.A.
TV DEMODULATOR PACK
NICAM DECODER
DV JACK C.B.A.
5P JACK C.B.A.
FRONT (L) C.B.A.
MODULAR C.B.A.
MOTOR POWER C.B.A.
POWER SUPPLY C.B.A.
MAIN C.B.A.
FRONT (R) C.B.A.
MECHANISM DRIVE C.B.A.
IR C.B.A.
DOOR PANEL C.B.A.
EDITING CONTROLLER
TIMER C.B.A.

Fig. 1-2

1-2. Disassembly/Assembly Procedures (for cabinet parts, C.B.A. and Mechanism Unit)

No.	ITEM / PART	FIG.	REMOVAL (SCREW)
1	Top Panel	Fig. D-1	4-Screws (A) 1-Screw (B) Remove Side Plate (6 Hooks).
2	Front Panel	Fig. D-2 Fig. D-3	2-Screws (C) 1-Connector (P3701) 9-Locking Tabs (a) When Front Panel is installed, confirm the Connector P7504.
3	AV Digital C.B.A.	Fig. D-6 Fig. D-5	2-Screws (D) 2-Connectors (FP3201, P3701) **Note 1:** When the EVR Connection C.B.A. is installed, confirm the arrow direction on C.B.A..
4	Analog Y/C C.B.A.	Fig. D-6	2-Screws (E)
5	Audio C.B.A.	Fig. D-6	**Note 2:** 2-Locking Tabs (b)
6	Motor Power C.B.A.	Fig. D-6	1-Connector (P2502) **Note 2:** 2-Locking Tabs (c)
7	Power C.B.A.	Fig. D-6	1-Connector (P1102) 7-Locking Tabs (d)
8	Front (L) C.B.A.	Fig. D-3	1-Connector (P4851) 2-Locking Tabs (e)
9	Front (R) C.B.A.	Fig. D-3	1-Screw (F) 1-Connector (P4801) 2-Locking Tabs (f)
10	5P Jack C.B.A. & DV Jack C.B.A.	Fig. D-5	1-Screw (G) 2-Connectors (P3781, P7651) 1-Locking Tab (g)
11	Timer C.B.A.	Fig. D-4	3-Connectors (P7501, P7502, P7503) 6-Locking Tabs (h)
12	Mechanism Unit	Fig. D-5	Remove the Tray Angle. Set the Mechnism to the "Eject" position. 4-Connectors (P2705, FP5002, P6504, P6505) 3-Screws (H)
13	Main C.B.A.	Fig. D-6	4-Screws (D/E) 2-Screws (I) 4-Screws (J) 7-Locking Tabs (i)

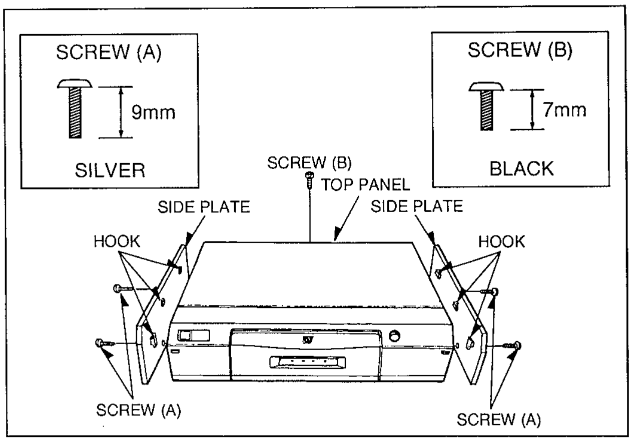

SCREW (A)
9mm
SILVER
SCREW (B)
7mm
BLACK
SCREW (B)
TOP PANEL
SIDE PLATE
SIDE PLATE
HOOK
HOOK
SCREW (A)
SCREW (A)

Fig. D-1

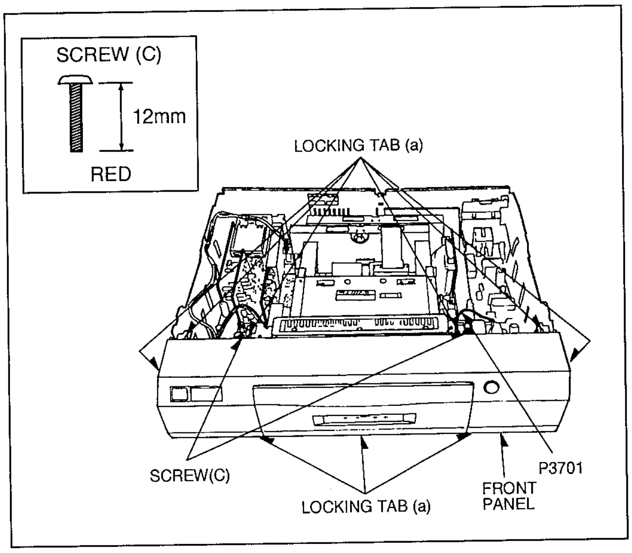

SCREW (C)
12mm
RED
LOCKING TAB (a)
SCREW(C)
LOCKING TAB (a)
P3701
FRONT PANEL

Fig. D-2

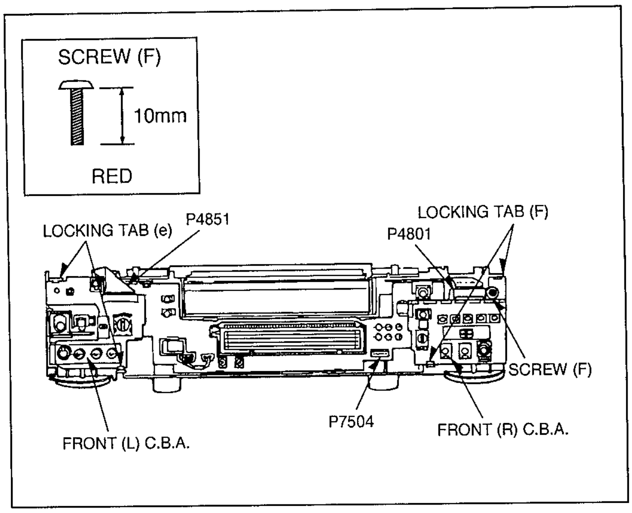

SCREW (F)
10mm
RED
LOCKING TAB (e)
P4851
LOCKING TAB (F)
P4801
SCREW (F)
P7504
FRONT (L) C.B.A.
FRONT (R) C.B.A.

Fig. D-3

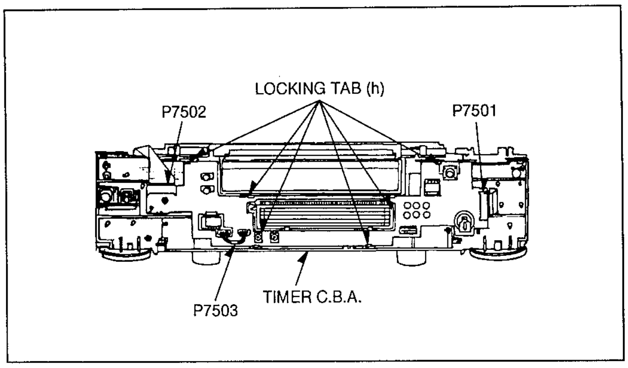

LOCKING TAB (h)
P7502
P7501
P7503
TIMER C.B.A.

Fig. D-4

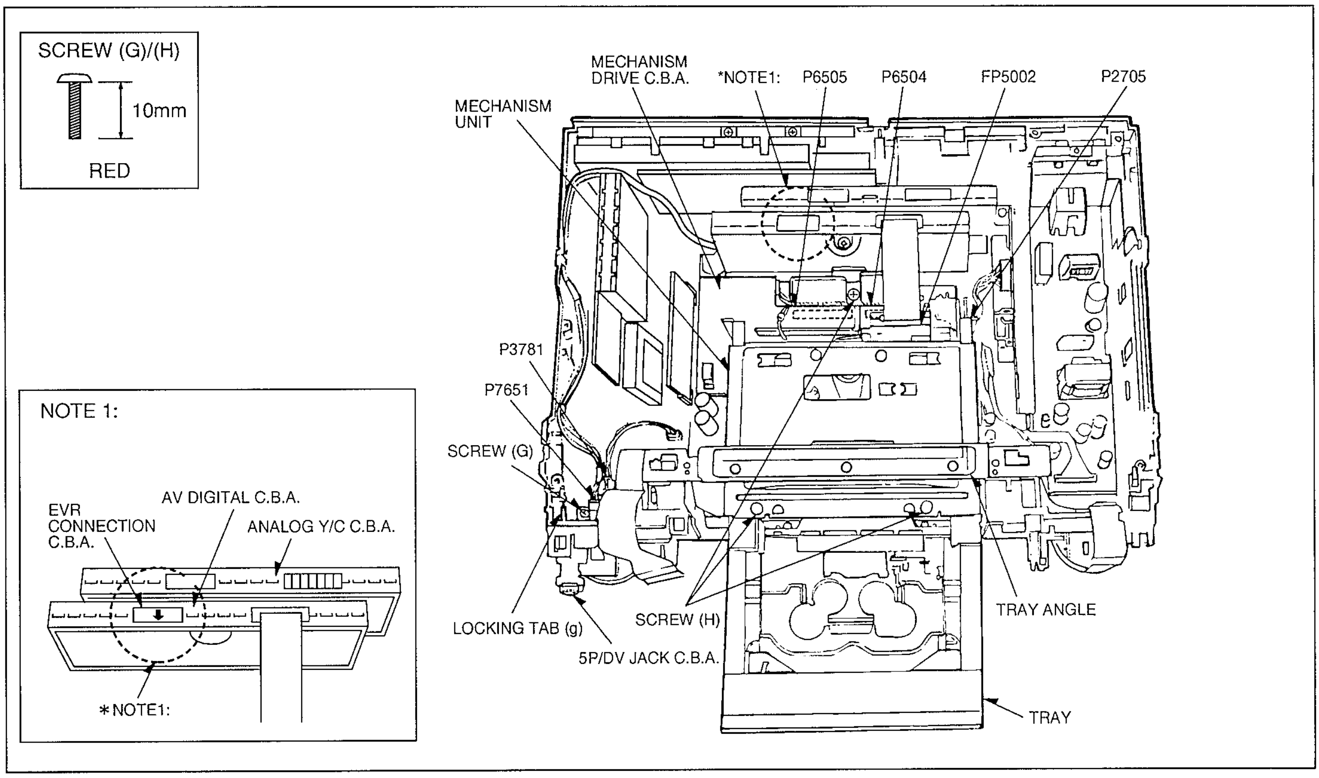

SCREW (G)/(H)
10mm
RED
NOTE 1:
AV DIGITAL C.B.A.
EVR CONNECTION C.B.A.
ANALOG Y/C C.B.A.
*NOTE1:
MECHANISM DRIVE C.B.A.
*NOTE1:
P6505
P6504
FP5002
P2705
MECHANISM UNIT
P3781
P7651
SCREW (G)
LOCKING TAB (g)
SCREW (H)
5P/DV JACK C.B.A.
TRAY ANGLE
TRAY

Fig. D-5

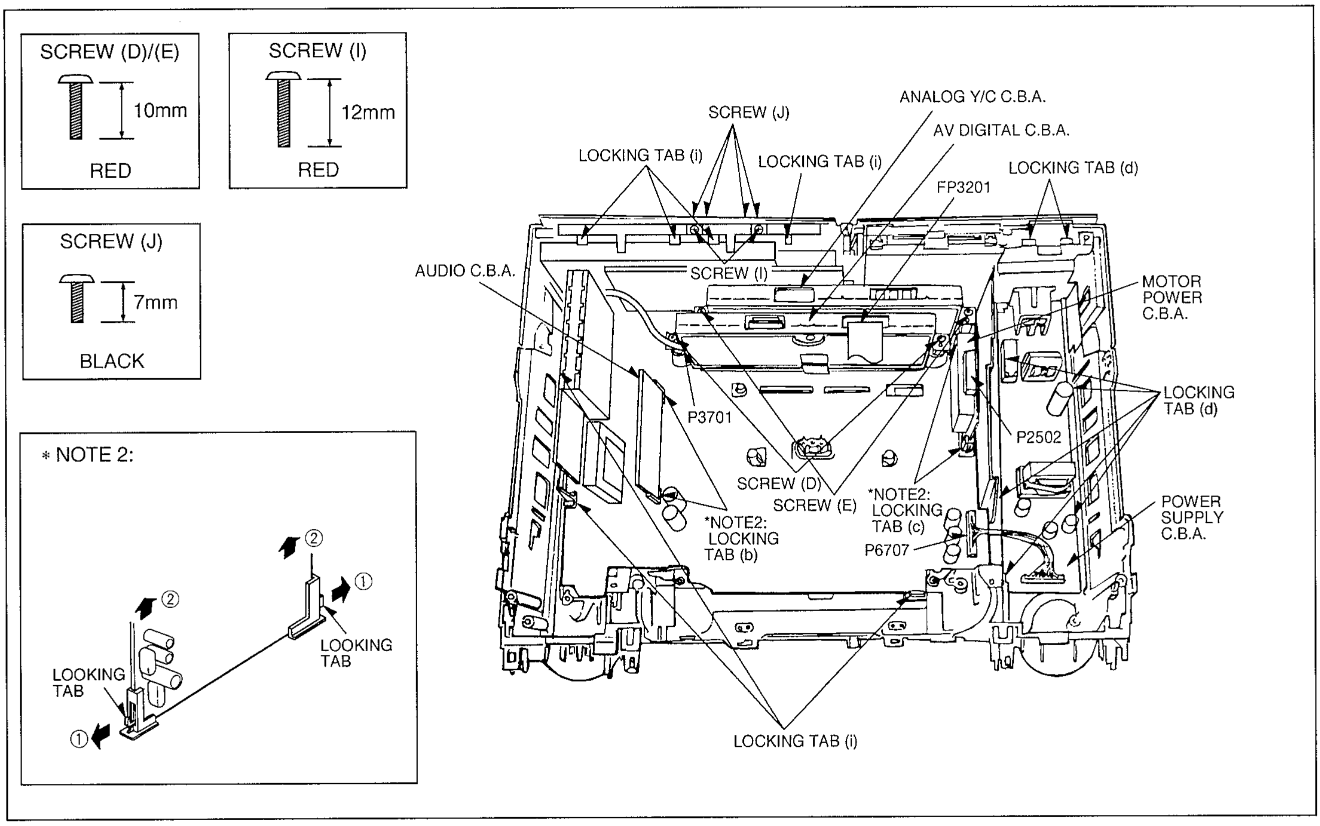

SCREW (D)/(E)
10mm
RED
SCREW (I)
12mm
RED
SCREW (J)
7mm
BLACK
* NOTE 2:
②
①
LOOKING TAB
LOOKING TAB
SCREW (J)
ANALOG Y/C C.B.A.
AV DIGITAL C.B.A.
LOCKING TAB (i)
LOCKING TAB (i)
FP3201
LOCKING TAB (d)
AUDIO C.B.A.
SCREW (I)
MOTOR POWER C.B.A.
P3701
LOCKING TAB (d)
P2502
SCREW (D)
SCREW (E)
*NOTE2: LOCKING TAB (c)
*NOTE2: LOCKING TAB (b)
P6707
POWER SUPPLY C.B.A.
LOCKING TAB (i)

Fig. D-6

2. Disassembly/Assembly Procedures for Mechanism

2-1. Disassemble Flow Chart for Mechanism

This procedure starts with the condition that the mechanism unit has been removed from the unit.
The following chart indicates disassembly steps of the mechanical parts in order to gain access to part for servicing. When reinstalling, perform the steps in reverse order.

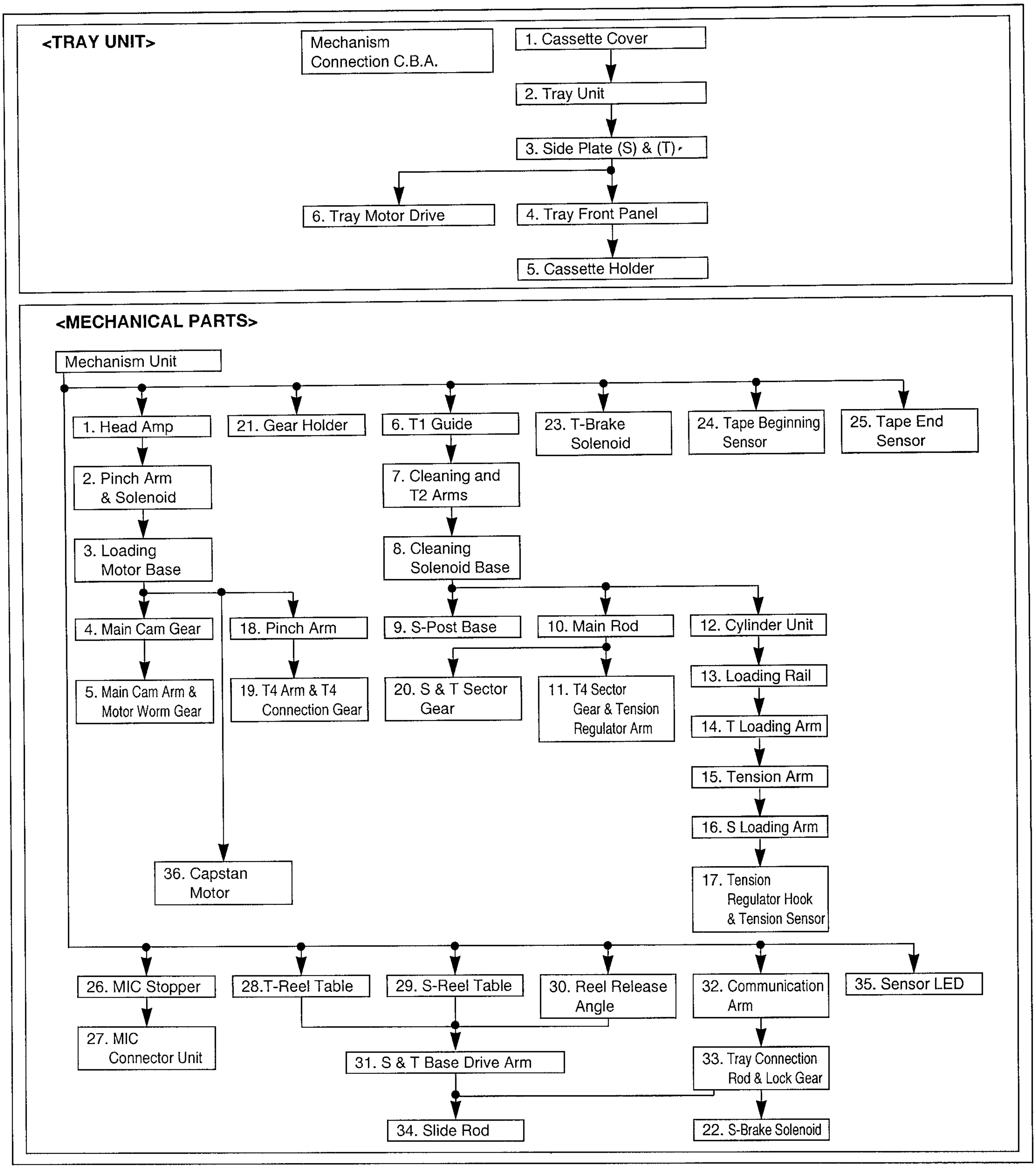

<TRAY UNIT>
Mechanism Connection C.B.A.
1. Cassette Cover
2. Tray Unit
3. Side Plate (S) & (T)
6. Tray Motor Drive
4. Tray Front Panel
5. Cassette Holder
<MECHANICAL PARTS>
Mechanism Unit
1. Head Amp
21. Gear Holder
6. T1 Guide
23. T-Brake Solenoid
24. Tape Beginning Sensor
25. Tape End Sensor
2. Pinch Arm & Solenoid
7. Cleaning and T2 Arms
3. Loading Motor Base
8. Cleaning Solenoid Base
4. Main Cam Gear
18. Pinch Arm
9. S-Post Base
10. Main Rod
12. Cylinder Unit
5. Main Cam Arm & Motor Worm Gear
19. T4 Arm & T4 Connection Gear
20. S & T Sector Gear
11. T4 Sector Gear & Tension Regulator Arm
13. Loading Rail
14. T Loading Arm
15. Tension Arm
16. S Loading Arm
36. Capstan Motor
17. Tension Regulator Hook & Tension Sensor
26. MIC Stopper
28.T-Reel Table
29. S-Reel Table
30. Reel Release Angle
32. Communication Arm
35. Sensor LED
27. MIC Connector Unit
31. S & T Base Drive Arm
33. Tray Connection Rod & Lock Gear
34. Slide Rod
22. S-Brake Solenoid

Fig. 2-1 Flow Chart

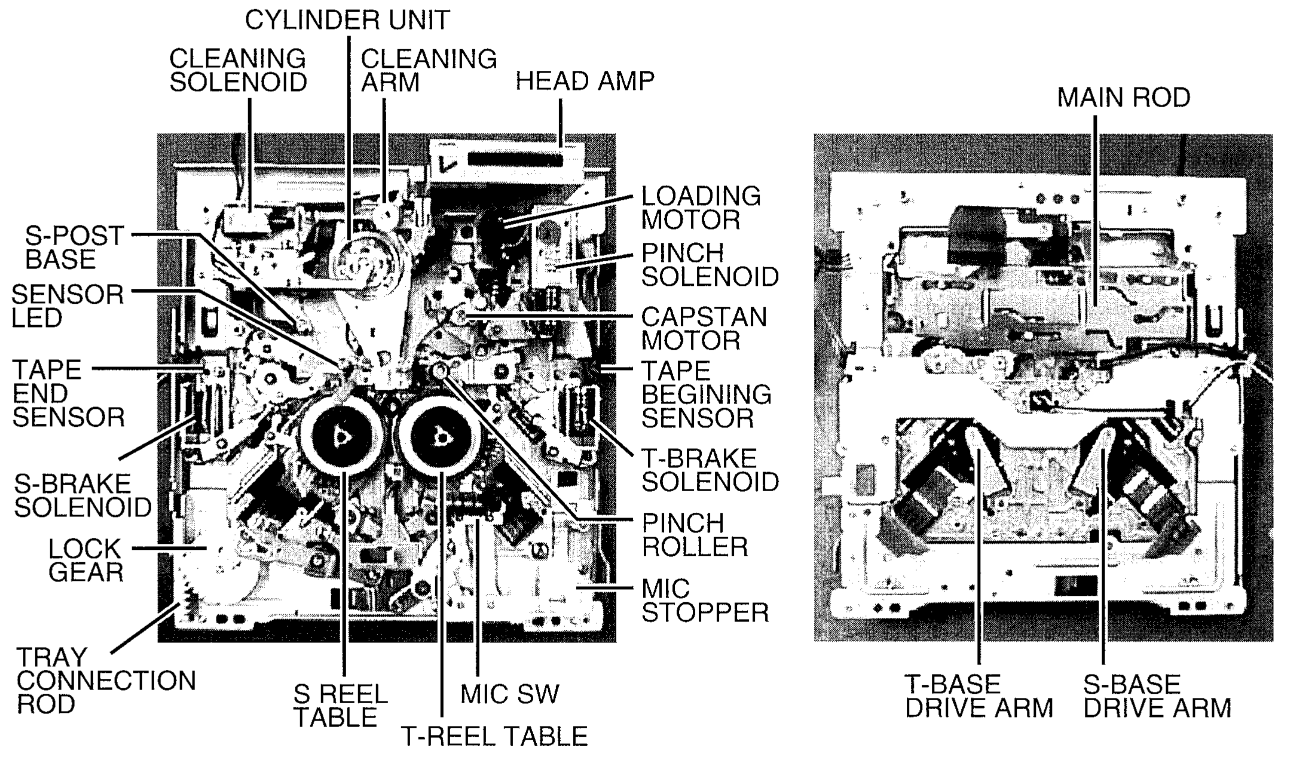

CYLINDER UNIT
CLEANING SOLENOID
CLEANING ARM
HEAD AMP
S-POST BASE
SENSOR LED
TAPE END SENSOR
S-BRAKE SOLENOID
LOCK GEAR
TRAY CONNECTION ROD
S REEL TABLE
T-REEL TABLE
MIC SW
LOADING MOTOR
PINCH SOLENOID
CAPSTAN MOTOR
TAPE BEGINING SENSOR
T-BRAKE SOLENOID
PINCH ROLLER
MIC STOPPER
MAIN ROD
T-BASE DRIVE ARM
S-BASE DRIVE ARM

Fig. 2-2

2-2. Disassembly/Assembly Procedures (for Mechanical Parts)

1. Mechanism Connection C.B.A.

Unscrew 4 screws and disconnect following connectors.

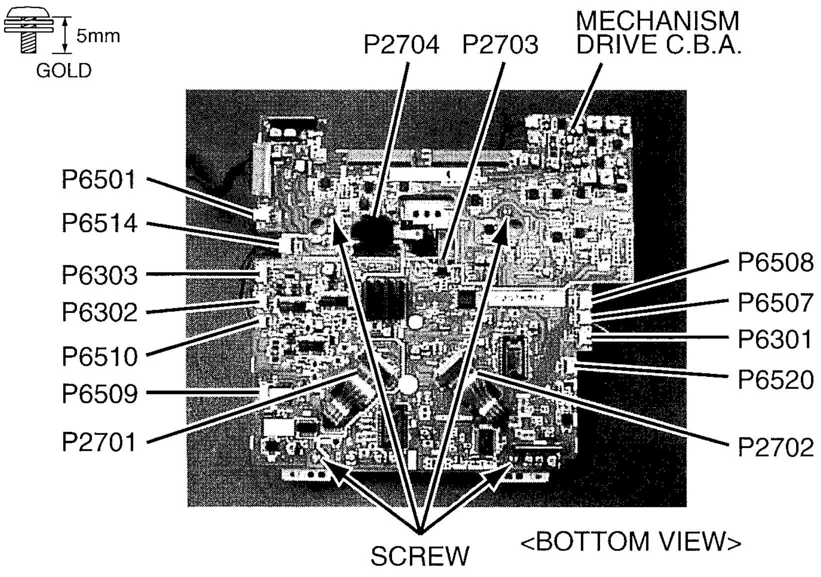

5mm
GOLD
P2704
P2703
MECHANISM DRIVE C.B.A.
P6501
P6514
P6303
P6302
P6510
P6509
P2701
P6508
P6507
P6301
P6520
P2702
SCREW
<BOTTOM VIEW>

Fig. 2-3

2. Tray Unit

2-1. Cassette Cover

Fig. T-1 Set the Mechanism to Tray open position. Unscrew 2 screws (A), then slide the Cassette Cover and unhook the hooking portion.

Fig. T-2 When the Tray can not be opened normally, slowly turn the Tray Drive Shaft until the Tray is fully opened

2-2. Tray Unit

Fig. T-3 Unscrew 4 screws (B) and disconnect P6502 when Mechanism Drive C.B.A. is connected to Mechanism Unit.

Fig. T-4 Since the Side Plate (S) is located underneath the Tray Connection Rod, then shift the Side Plate (S) in the front direction and lift it up.

Note of installation

Fig. T-5 Push the Tray Connection Rod in the rear direction and install the Tray Unit so that the Reel Shaft on the Side Plate (S) meets the groove on the Tray Connection Rod.

2-3. Side Plate (S) and (T)

Fig. T-6 Set the Pinion Gear so that the projection (A) is aligned to the Dot Mark on the Rack (S) and (T) and remove the Side Plate (S) and (T).

Note of installation

Fig. T-10 Confirm the position of the Cassette Change Lever. (Down position)

Fig. T-7 Install the Pinion Gear so that the projection (B) on the pinion Gear is aligned to the hole on the Tray Drive Shaft Gear.

Fig. T-6 Install the Side Plate (S) and (T) so that the projection (A) is aligned to the dot mark on the Rack (S) and (T).

2-4. Tray Front Panel

Fig. T-8 Unscrew 2 screws (C) and unlock 4 locking tabs (A), then remove the Tray Front Panel.

2-5. Cassette Holder

Fig. T-9 Slightly open the S and T Rack Unit and slowly remove the Cassette Holder from the Groove on the S and T Rack Unit.

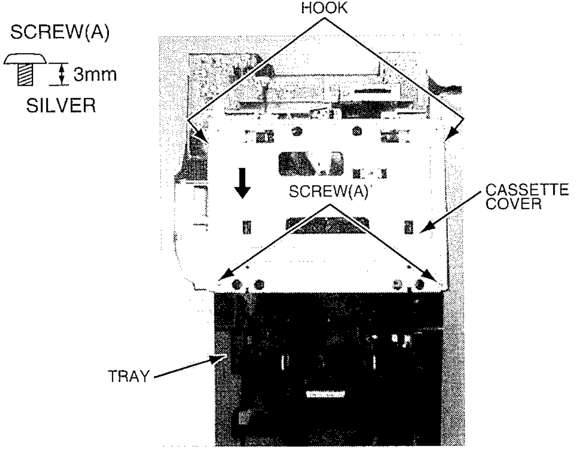

SCREW(A)
3mm
SILVER
HOOK
SCREW(A)
CASSETTE COVER
TRAY

Fig. T-1

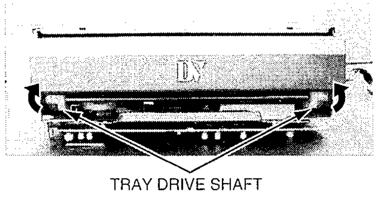

TRAY DRIVE SHAFT

Fig. T-2

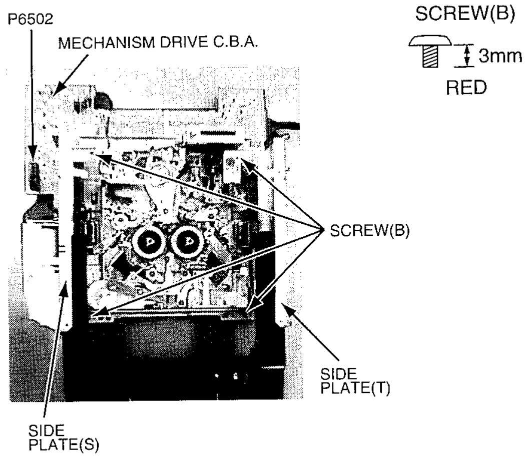

P6502
MECHANISM DRIVE C.B.A.
SCREW(B)
3mm
RED
SCREW(B)
SIDE PLATE(T)
SIDE PLATE(S)

Fig. T-3

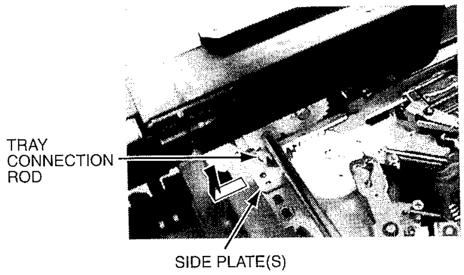

TRAY CONNECTION ROD
SIDE PLATE(S)

Fig. T-4

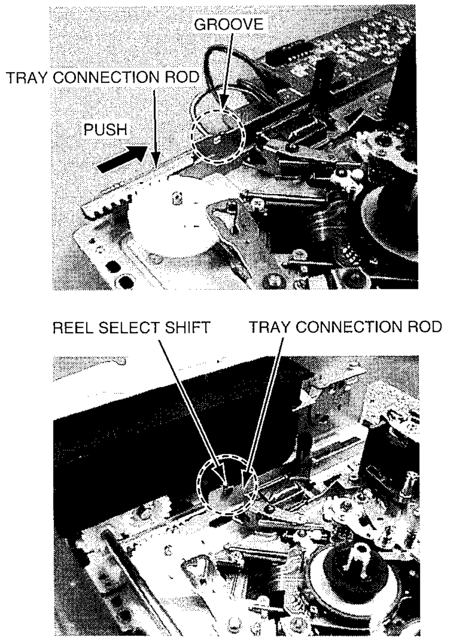
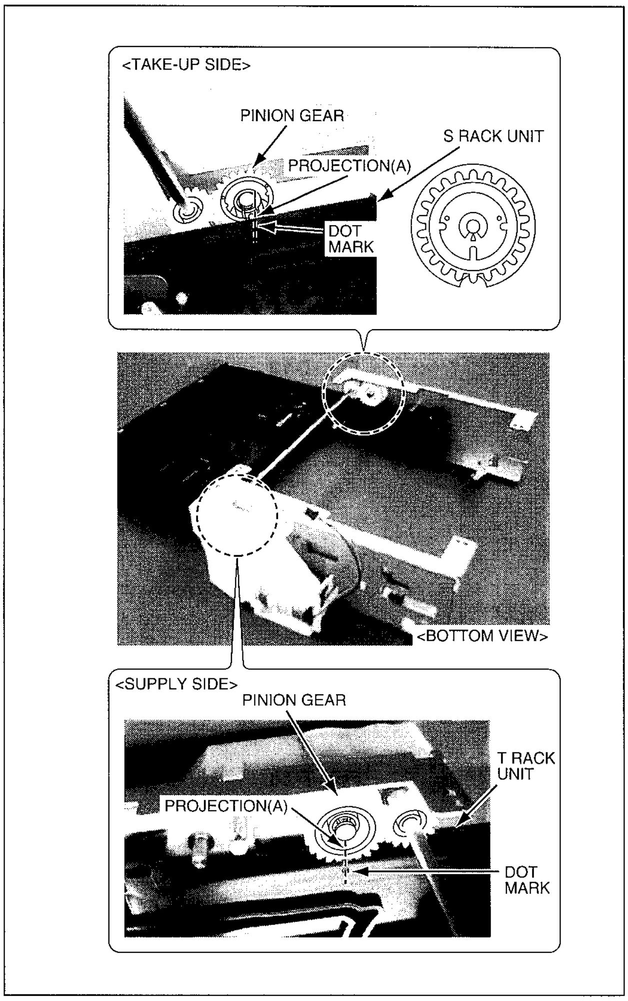
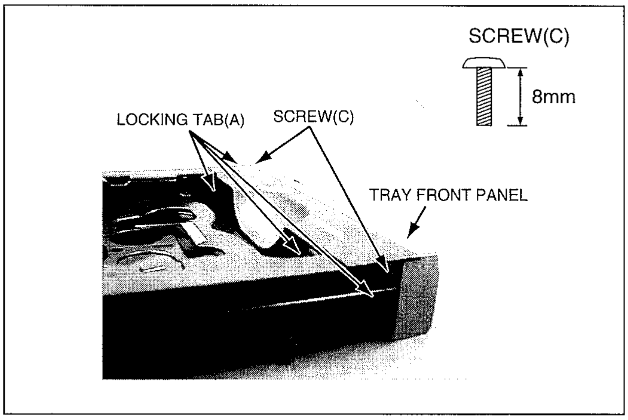

GROOVE
TRAY CONNECTION ROD
PUSH
REEL SELECT SHIFT
TRAY CONNECTION ROD

Fig. T-5



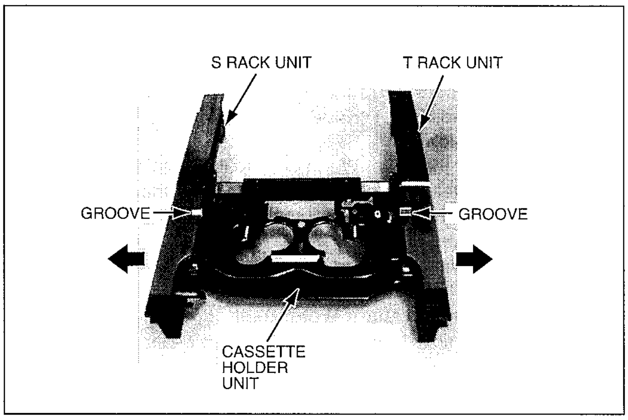
<TAKE-UP SIDE>
PINION GEAR
S RACK UNIT
PROJECTION(A)
DOT MARK
<BOTTOM VIEW>
<SUPPLY SIDE>
PINION GEAR
T RACK UNIT
PROJECTION(A)
DOT MARK

Fig. T-6



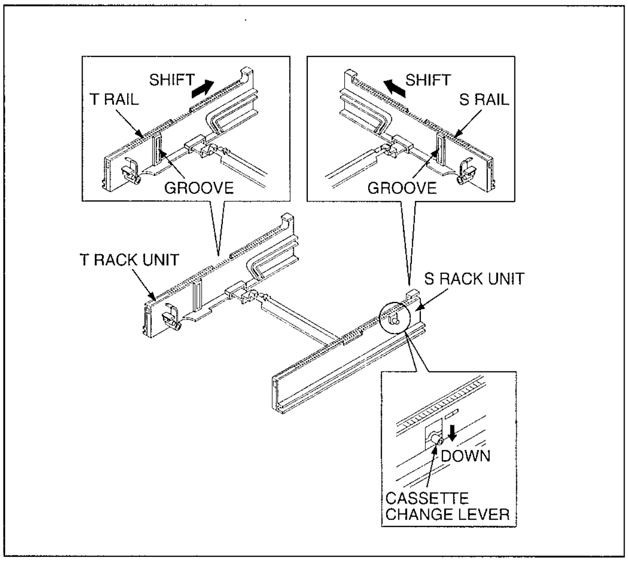
SCREW(C)
8mm
LOCKING TAB(A)
SCREW(C)
TRAY FRONT PANEL

Fig. T-8

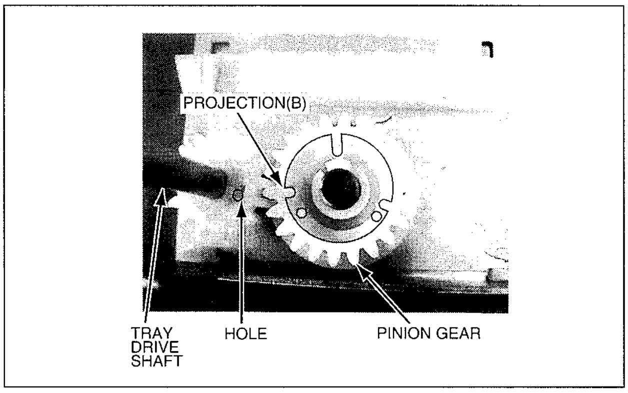


S RACK UNIT
T RACK UNIT
GROOVE
GROOVE
CASSETTE HOLDER UNIT

Fig. T-9



SHIFT
T RAIL
GROOVE
SHIFT
S RAIL
GROOVE
T RACK UNIT
S RACK UNIT
DOWN
CASSETTE CHANGE LEVER



PROJECTION(B)
TRAY DRIVE SHAFT
HOLE
PINION GEAR

Fig. T-7

Fig. T-10

Note of installation

Fig. T-10 Shift the S and T Rail on the S and T Rack Unit to makethe Tray down condition.

Fig. T-11 Install the Cassette Holder Unit so that the projection (C) on the Cassette Holder meets the groove on the S and T Rack unit.

2-6. Tray Motor Drive Unit

Fig. T-12 Unlock 3 locking tabs (B) and remove the Tray Motor Drive Unit.

Fig. T-13 Remove the Syncro. Drive Gear, Worm Foil Gear, Worm Gear and Tray Motor.

3. Mechanical Parts

3-1. Head AMP

Fig. M-1 Unscrew 2 screws (E).

Fig. M-2 Slide the Shield Case in up direction and remove the Shield Case.
Disconnect FP5001.

3-2. Pinch Solenoid and Pinch Arm

Fig. M-3 Unscrew 2 screws (F) and remove Cut Washer.
Shift the Pinch Solenoid in left direction and remove thePinch Solenoid and Pinch Arm.

3-3. Loading Motor Base

Fig. M-4 Unscrew 5 screws (G) and (H) and remove the Loading Motor Base.

Note of installation

Fig. M-7 Set the Motor Worm Gear to the Loading Motor Shaft.

Fig. M-5 Install the Loading Motor Base so that the projection (D)on the Mode SW meets the Hole on the Main Cam Gear.

3-4. Main Cam Gear

Fig. M-6 Remove the Main Cam Gear.

3-5. Main Cam Arm and Motor Worm Gear

Fig. M-7 Remove the Main Cam Arm and Motor Worm Gear.

Note of installation

Fig. M-8 Install the Main Cam Arm so that the projection (E) on the Main Cam Arm meets the hole on the Main Rod.

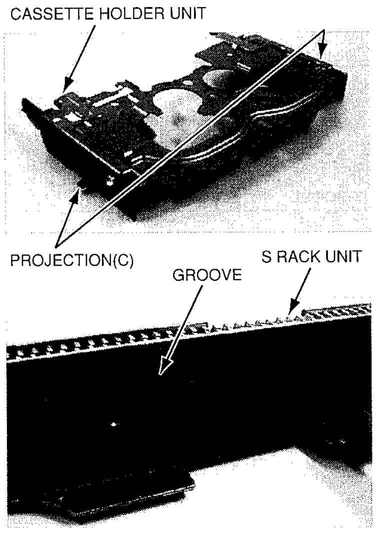

CASSETTE HOLDER UNIT
PROJECTION(C)
GROOVE
S RACK UNIT

Fig. T-11

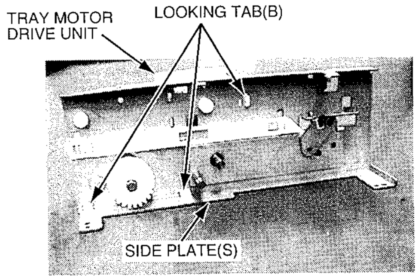

TRAY MOTOR
DRIVE UNIT
LOOKING TAB(B)
SIDE PLATE(S)

Fig. T-12

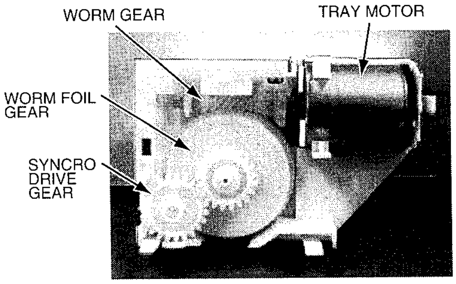

WORM GEAR
TRAY MOTOR
WORM FOIL
GEAR
SYNCRO
DRIVE
GEAR

Fig. T-13

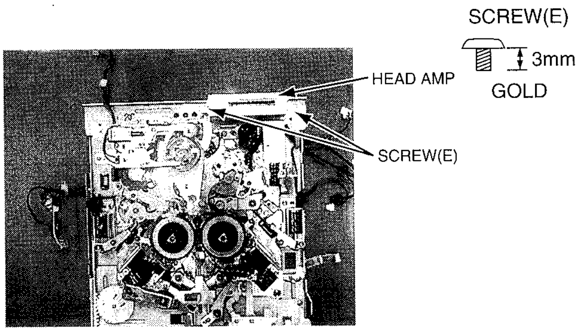

SCREW(E)
3mm
GOLD
HEAD AMP
SCREW(E)

Fig. M-1

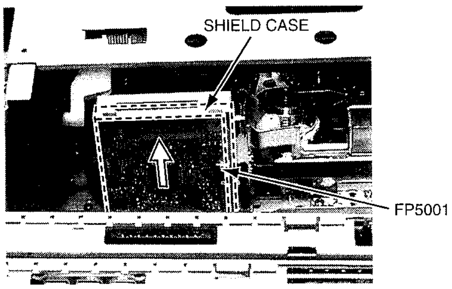

SHIELD CASE
FP5001

Fig. M-2

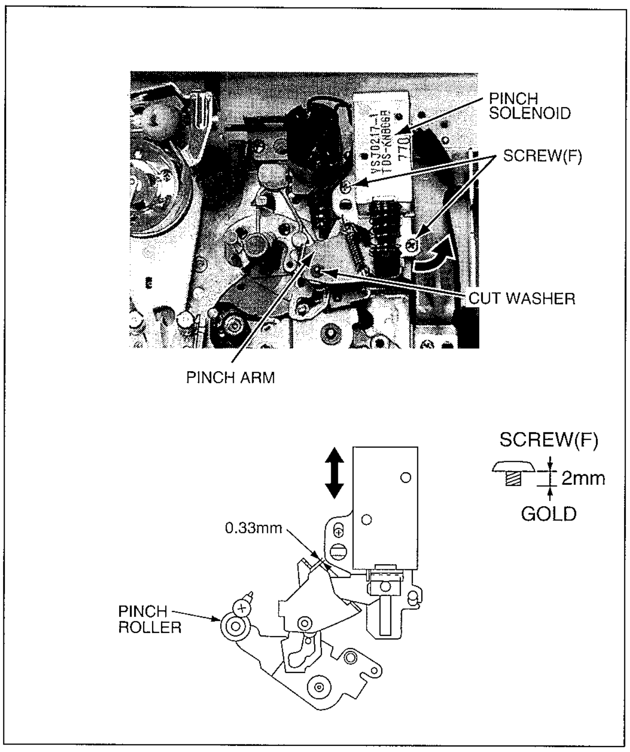

PINCH
SOLENOID
SCREW(F)
CUT WASHER
PINCH ARM
SCREW(F)
2mm
GOLD
0.33mm
PINCH
ROLLER

Fig. M-3

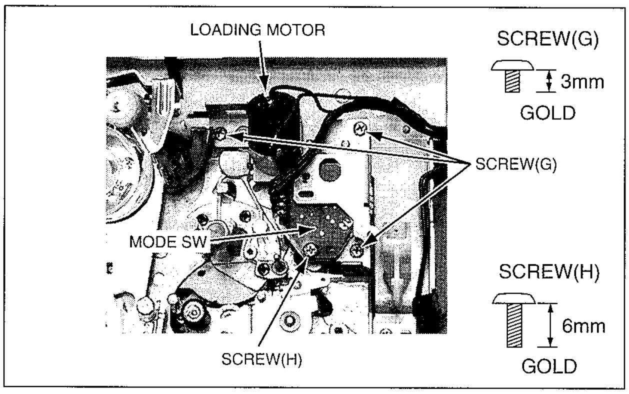

LOADING MOTOR
SCREW(G)
3mm
GOLD
SCREW(G)
MODE SW
SCREW(H)
SCREW(H)
6mm
GOLD

Fig. M-4

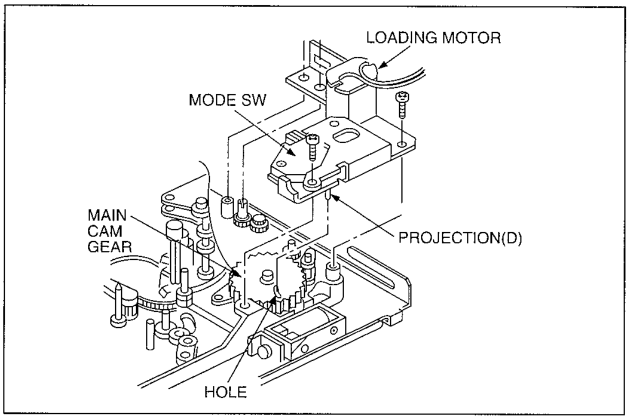

LOADING MOTOR
MODE SW
MAIN
CAM
GEAR
PROJECTION(D)
HOLE

Fig. M-5

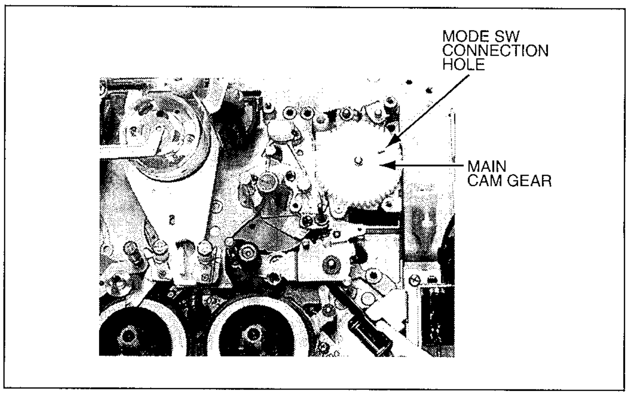

MODE SW
CONNECTION
HOLE
MAIN
CAM GEAR

Fig. M-6

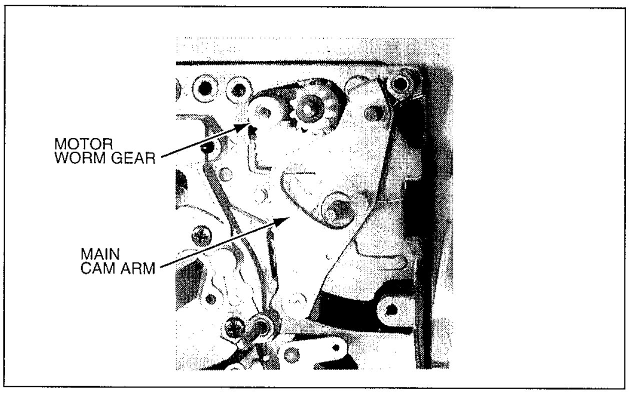

MOTOR
WORM GEAR
MAIN
CAM ARM

Fig. M-7

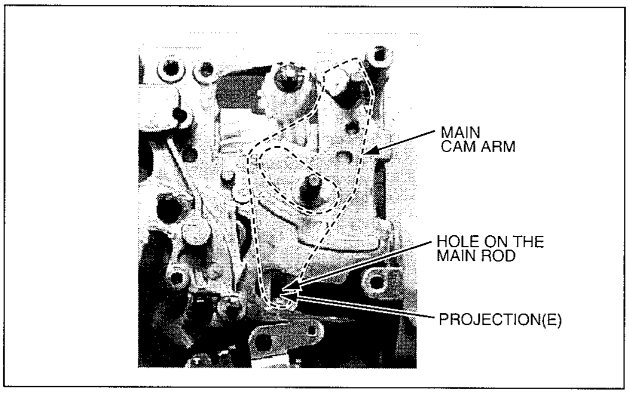

MAIN
CAM ARM
HOLE ON THE
MAIN ROD
PROJECTION(E)

Fig. M-8

3-6. T1 Guide

Fig. M-9 Unscrew 2 screws (I) and remove the T1 Guide.

3-7. Cleaning Arm and T2 Arm

Fig. M-10 Unhook the Cleaning Spring.
Unlock the locking portion of the Cleaning Arm.
Remove the T2 Arm with Spring.

3-8. Cleaning Solenoid Base and Cleaning Solenoid

Fig. M-11 Unscrew 3 screws (J) and remove the Cleaning Solenoid Base.

Fig. M-12 Unscrew 2 screws (K) and remove the Cleaning Solenoid.

Note of installation

Fig. M-10 Adjust the Cleaning Solenoid Base so that the gap between the Cylinder and Cleaning Arm becomes 1.0mm +/- 0.1mm.
Confirm that the Cleaning Roller rotates when the Cleaning Solenoid is turned on in the play mode.

3-9. S-Post Base

Fig. M-13 Unscrew 1 screw (L) and remove the S-Post Base.

3-10. Main Rod

Fig. M-14 Slide the Main Rod and remove it.
When the Cleaning Solenoid Base is not removed;
Slightly shift the Cleaning Solenoid Base in direction and slide the Main Rod since the Main Rod is stopped by Cleaning Solenoid Base.

Note of installation

Fig. M-15 Install the Main Rod so that the each drive shaft meets the groove of the Main Rod. To lock the Main Rod, slide it in left direction.

3-11. T4 Sector Gear and Tension Regulator Arm

Fig. M-16 Remove the T4 Sector Gear and Tension Regulator Arm.

Note of installation

Fig. M-17 Install the T4 Sector Gear so that the alignment hole of the T4 Sector Gear is aligned to the alignment gear of the T4 Arm.

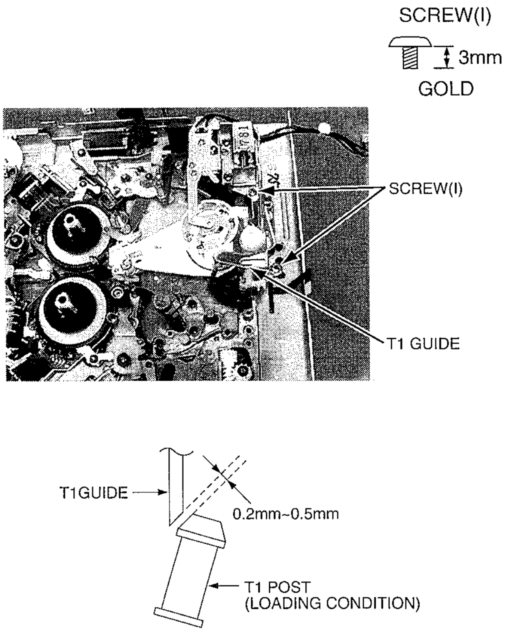

SCREW(I)
3mm
GOLD
SCREW(I)
T1 GUIDE
T1GUIDE
0.2mm~0.5mm
T1 POST
(LOADING CONDITION)

Fig. M-9

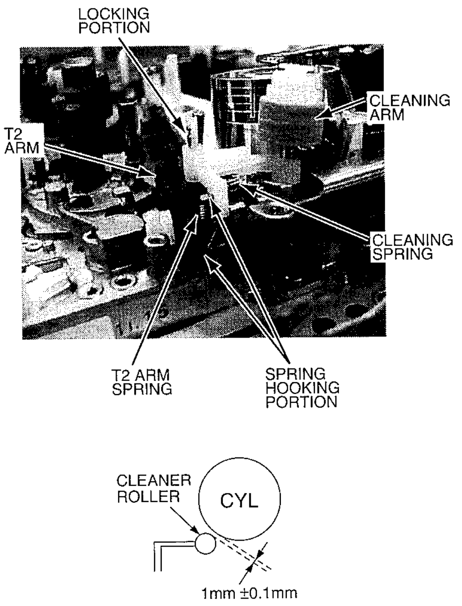

LOCKING PORTION
CLEANING ARM
T2 ARM
CLEANING SPRING
T2 ARM SPRING
SPRING HOOKING PORTION
CLEANER ROLLER
CYL
1mm ±0.1mm

Fig. M-10

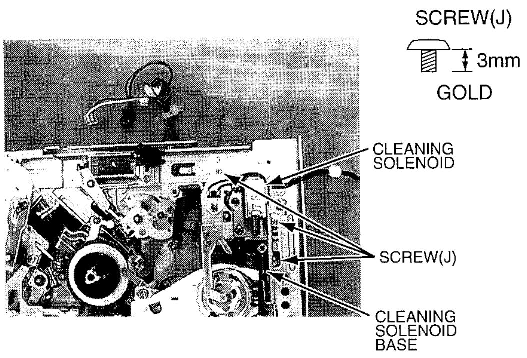

SCREW(J)
3mm
GOLD
CLEANING SOLENOID
SCREW(J)
CLEANING SOLENOID BASE

Fig. M-11

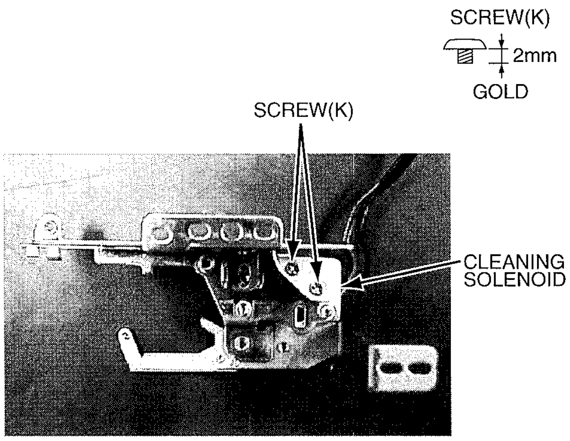

SCREW(K)
2mm
GOLD
SCREW(K)
CLEANING SOLENOID

Fig. M-12

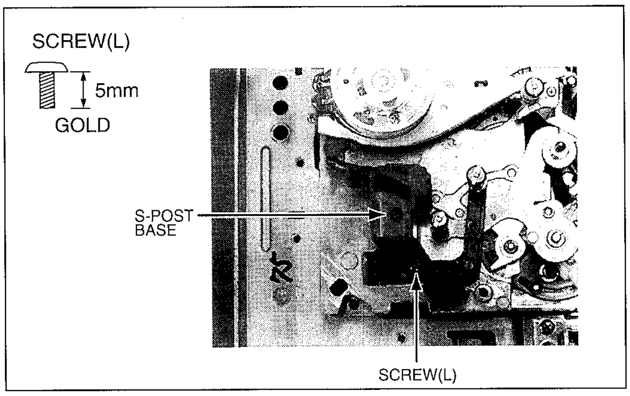

SCREW(L)
5mm
GOLD
S-POST BASE
SCREW(L)

Fig. M-13

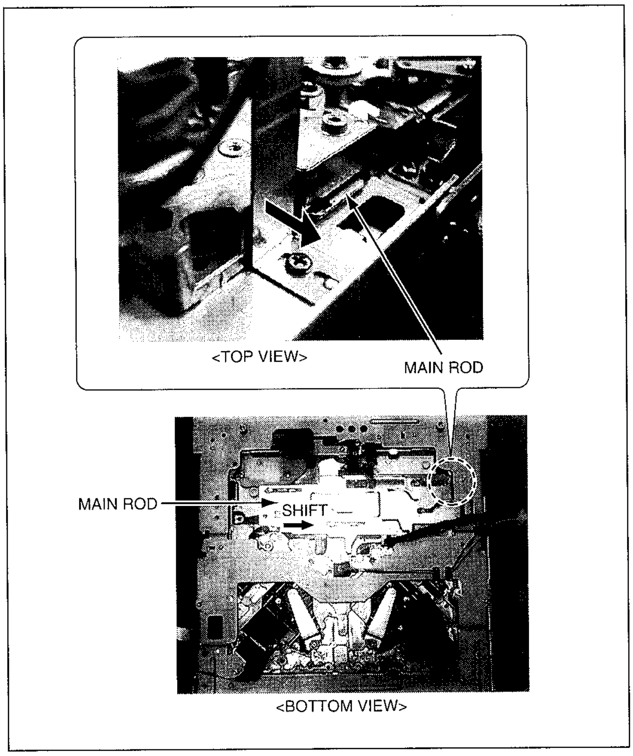

<TOP VIEW>
MAIN ROD
MAIN ROD
SHIFT
<BOTTOM VIEW>

Fig. M-14

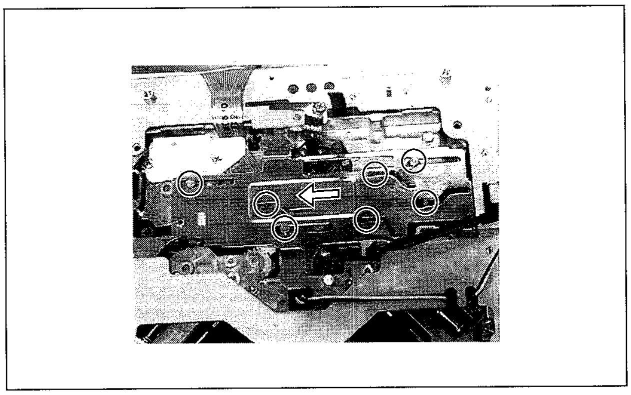


Fig. M-15

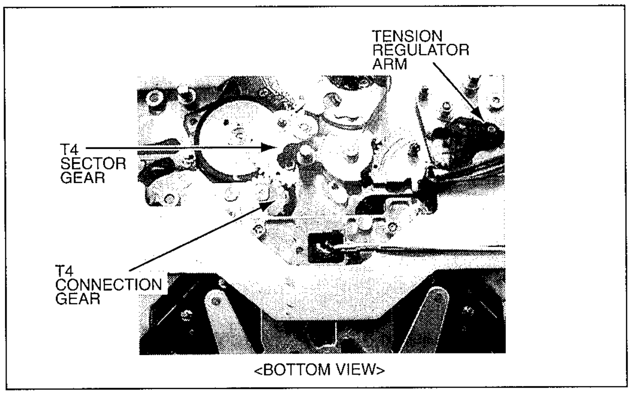

TENSION REGULATOR ARM
T4 SECTOR GEAR
T4 CONNECTION GEAR
<BOTTOM VIEW>

Fig. M-16

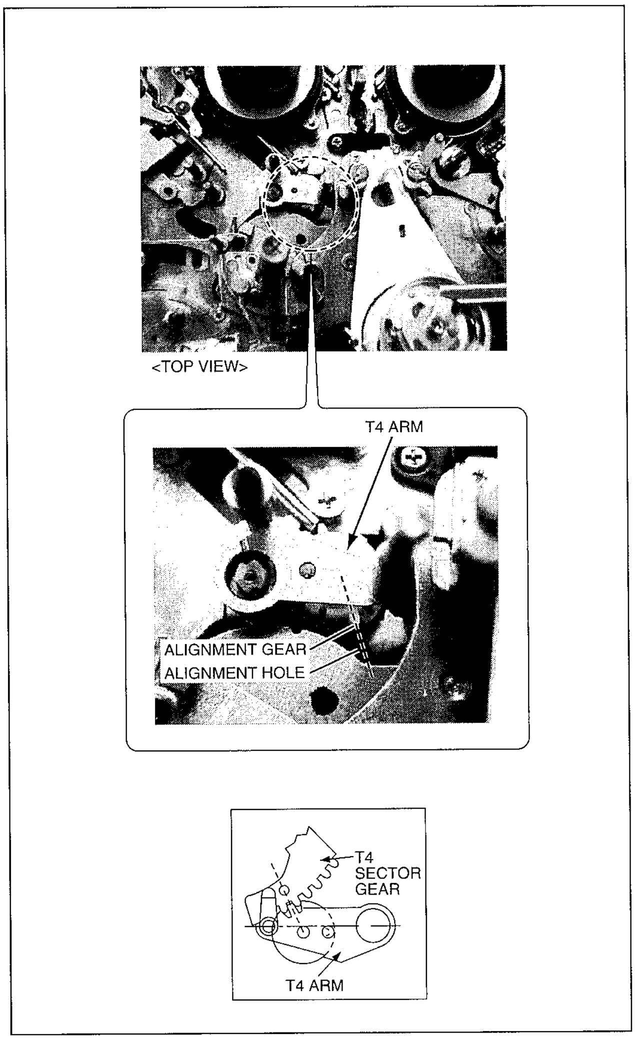

<TOP VIEW>
T4 ARM
ALIGNMENT GEAR
ALIGNMENT HOLE
T4 SECTOR GEAR
T4 ARM

Fig. M-17

3-12. Cylinder Unit

Fig. M-18 Unscrew 4 screws (M) and (N). Then remove the Cylinder Unit carefully.

Fig. M-19 When removing or installing the Cylinder Unit, use extreme care so as not to damage the flexible cable.

3-13. Loading Rail

Fig. M-20 Unscrew 2 screws (O) and (P). Then slightly lift up the Loading Rail and slowly remove the S and T Loading Posts from the top side of the Loading Rail.

Note of installation

Fig. M-20 Install the S and T Loading Posts to the Loading Rail and set the Loading Rail to the chassis. Then install 2 screws (O) and (P).

3-14. T Loading Arm (Post)

Fig. M-21 Remove the E-Ring, washer and T Loading Arm. When replacing the T Loading Arm, perform the "Mechanical Adjustment Procedures".

Note of installation

Fig. M-21 Install the T Loading Arm so that the hole on the gear of the T Loading Arm is aligned to the hole on the T Sector Gear.

3-15. Tension Arm

Fig. M-22 Remove the cut washer and unhook the spring, then remove the Tension Arm.

When replacing the Tension Arm, perform the "Mechanical Adjustment Procedures".

3-16. S Loading Arm (Post)

Fig. M-23 Remove the E-Ring, washer and S Loading Arm.

When replacing the S Loading Arm, perform the "Mechnical Adjustment Procedures".

Note of installation

Fig. M-23 Install the S Loading Arm so that the hole on the gear of the S Loading Arm is aligned to the hole on the S Sector Gear.

3-17. Tension Regulator Hook and Tension Sensor

Fig. M-24 Unscrew 1 screw (Q) located under the S Brake Solenoid, washer and Tension Sensor.

Remove the cut washer and Tension Regulator Hook.

When replacing the Tension Sensor, perform the "Mechanical Adjustment Procedures".

Note of installation

Fig. M-25 After installed Tension Sensor, confirm the position of the Tension Sensor cable.

3-18. Pinch Arm

Fig. M-26 Remove the cut washer and Pinch Arm with spring.

Note of installation

Fig. M-26 Confirm the hooking portion of the spring.

3-19. T4 Arm and T4 Connection Gear

Fig. M-27 Remove the Nylon Nut using tweezers or box driver (2.5mm).

Remove the washer, spring and T4 Arm.

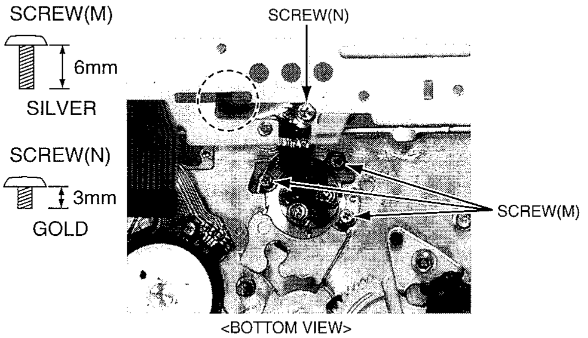

SCREW(M)
6mm
SILVER
SCREW(N)
3mm
GOLD
SCREW(N)
SCREW(M)
<BOTTOM VIEW>

Fig. M-18

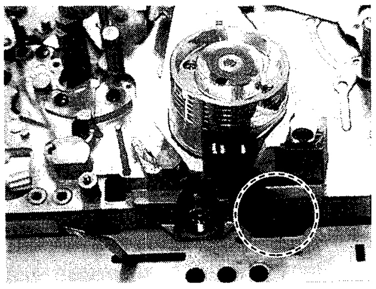


Fig. M-19

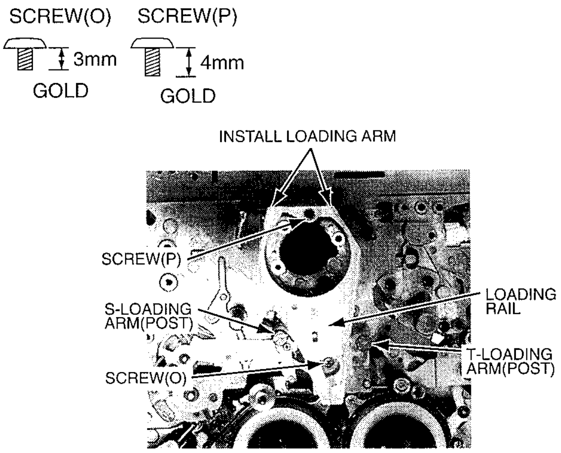

SCREW(O)
SCREW(P)
3mm
4mm
GOLD
GOLD
INSTALL LOADING ARM
SCREW(P)
LOADING RAIL
S-LOADING ARM(POST)
T-LOADING ARM(POST)
SCREW(O)

Fig. M-20

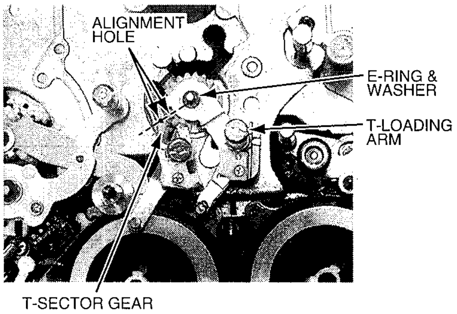

ALIGNMENT HOLE
E-RING & WASHER
T-LOADING ARM
T-SECTOR GEAR

Fig. M-21

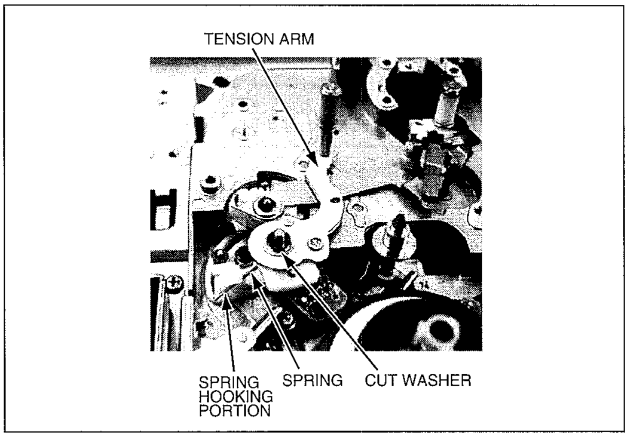

TENSION ARM
SPRING HOOKING PORTION
SPRING
CUT WASHER

Fig. M-22

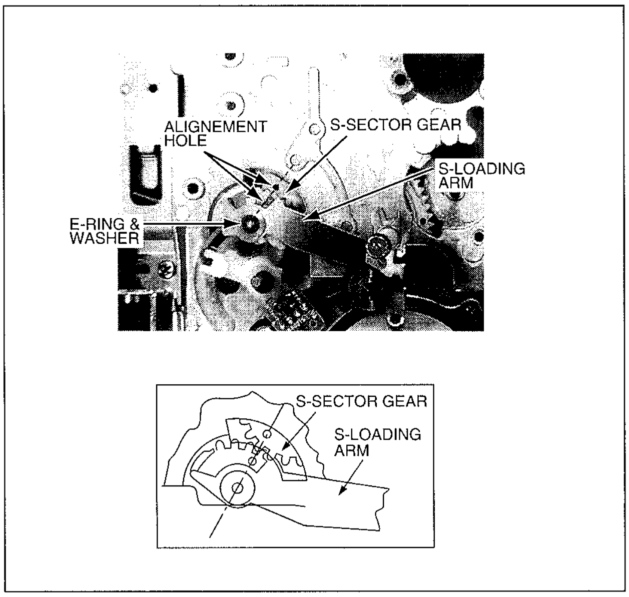

ALIGNEMENT HOLE
S-SECTOR GEAR
S-LOADING ARM
E-RING & WASHER
S-SECTOR GEAR
S-LOADING ARM

Fig. M-23

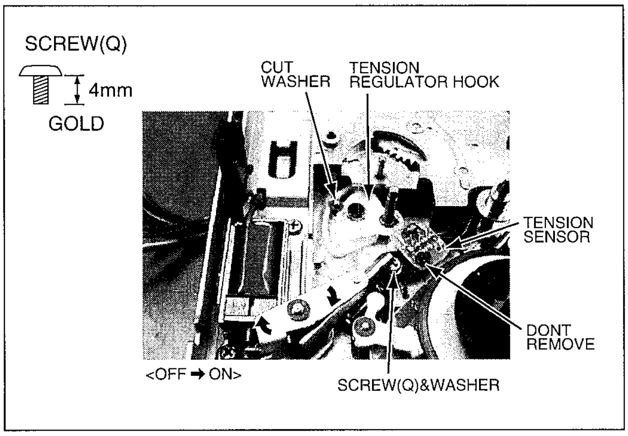

SCREW(Q)
4mm
GOLD
CUT WASHER
TENSION REGULATOR HOOK
TENSION SENSOR
DONT REMOVE
<OFF → ON>
SCREW(Q)&WASHER

Fig. M-24

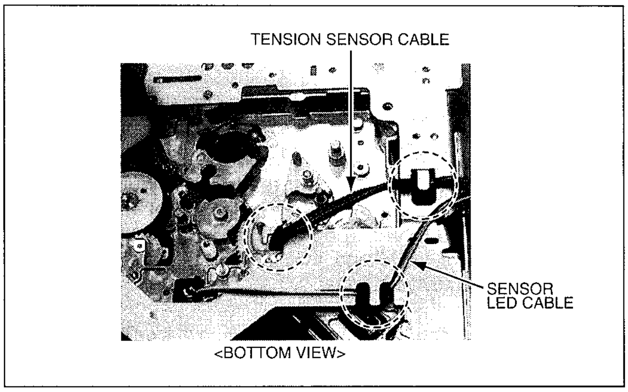

TENSION SENSOR CABLE
SENSOR LED CABLE
<BOTTOM VIEW>

Fig. M-25

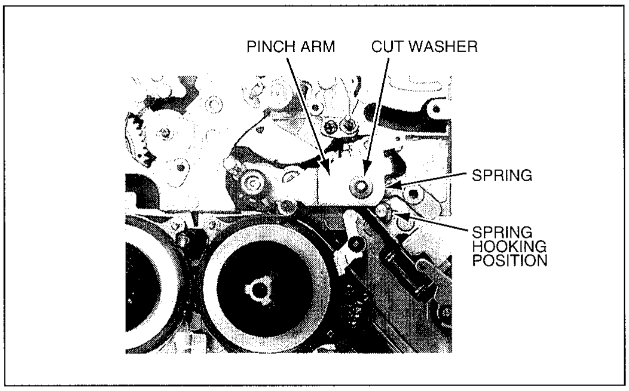

PINCH ARM
CUT WASHER
SPRING
SPRING HOOKING POSITION

Fig. M-26

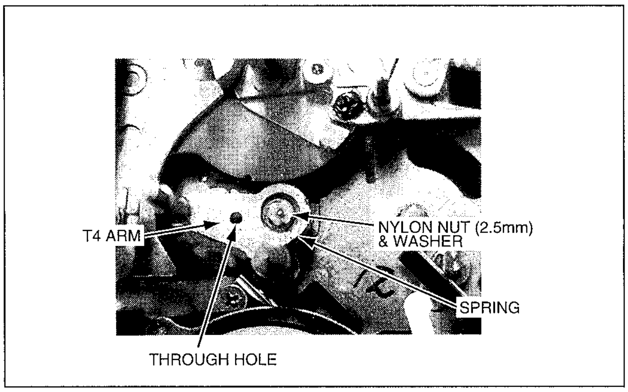

T4 ARM
NYLON NUT (2.5mm) & WASHER
SPRING
THROUGH HOLE

Fig. M-27

Fig. M-28 Remove the cut washer and T4 Connection Gear. When replacing the T4 Arm and/or T4 Connection Gear,perform the " Mechanical Adjustment Procedures"

Note of installation

Fig. M-28 Install the T4 Connection Gear and cut washer.

Fig. M-27 Install the T4 Arm so that the through hole on the T4 Arm is aligned to the alignment hole on the T4 Connection Gear as shown in Fig. M-28.

3-20. S and T Sector Gear

Fig. M-29 Turn the S and T Sector Gears to clockwise and remove these Gears.

3-21. Gear Holder

Fig. M-30 Unscrew 2 screws (R) and remove the Gear Holder.

Note of installation

Fig. M-30 When installing the Gear Holder, confirm the position of the flexible cable of the Capstan Motor.

3-22. S-Brake Solenoid

Fig. M-31 Unscrew 2 screws (S). When removing the S-Brake Solenoid, the Tray Connection Rod must be removed because of the connector of the Solenoid is located between the Chassis and Tray Connection Rod.

Note of installation

Fig. M33 Adjust the S-Brake Solenoid so that the gap between theS-Brake and S-Reel Table becomes 0.2 to 0.5 mm (just release).

3-23. T-Brake Solenoid

Fig. M-32 Unscrew 2 screws (T) and remove the T-Brake Solenoid.

Note of installation

Fig. M33 Adjust the T-Brake Solenoid so that the gap between the T-Brake and T-Reel Table becomes 0.2 to 0.5 mm (just release).

3-24. Tape Beginning Sensor (T Sensor)

Fig. M-34 Unlock the locking portion and remove the Tape Beginning Sensor.

3-25. Tape End Sensor (S Sensor)

Fig. M-35 Unlock the locking portion and remove the Tape End Sensor.

3-26. MIC Stopper

Fig. M-36 Unscrew 2 screws (U) and remove the MIC Stopper.

3-27. MIC Connector Unit

Fig. M-37 Unscrew 1 screw (V) and remove the cut washer and MIC Connector Unit.

Note of installation

Fig. M-37 Install the MIC Connector Unit so that the projection (F) meets the hole on the MIC Connector Unit.

3-28. T Reel Table

Fig. M-38 Unscrew 4 screws (W) and remove the T Reel Table with 2 shifts.

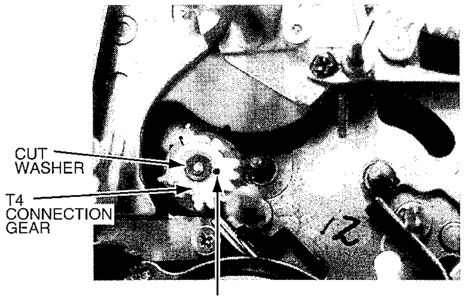

CUT WASHER
T4 CONNECTION GEAR
ALIGNMENT HOLE

Fig. M-28

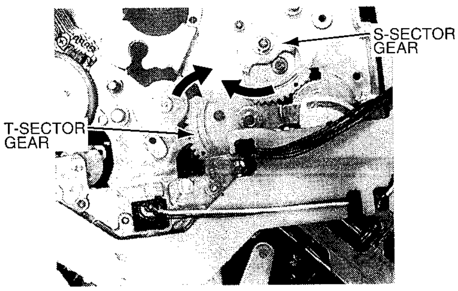

S-SECTOR GEAR
T-SECTOR GEAR
<BOTTOM VIEW>

Fig. M-29

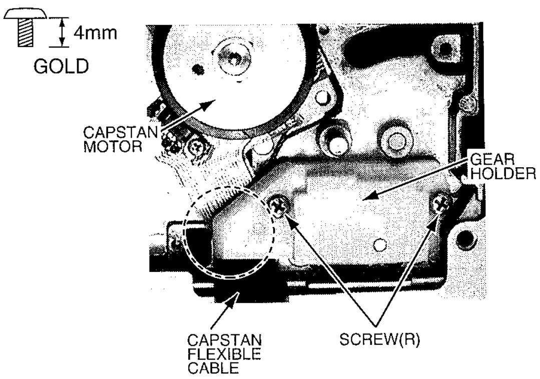

SCREW(R)
4mm
GOLD
CAPSTAN MOTOR
GEAR HOLDER
CAPSTAN FLEXIBLE CABLE
SCREW(R)

Fig. M-30

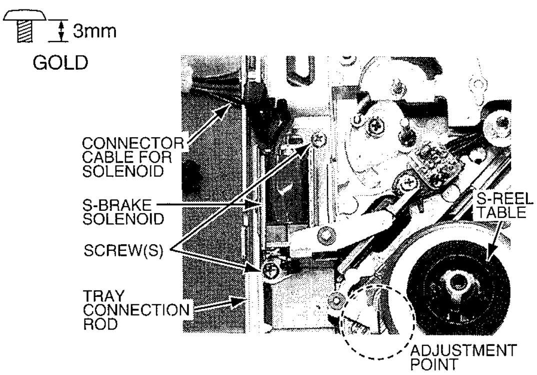

SCREW(S)
3mm
GOLD
CONNECTOR CABLE FOR SOLENOID
S-BRAKE SOLENOID
SCREW(S)
TRAY CONNECTION ROD
S-REEL TABLE
ADJUSTMENT POINT

Fig. M-31

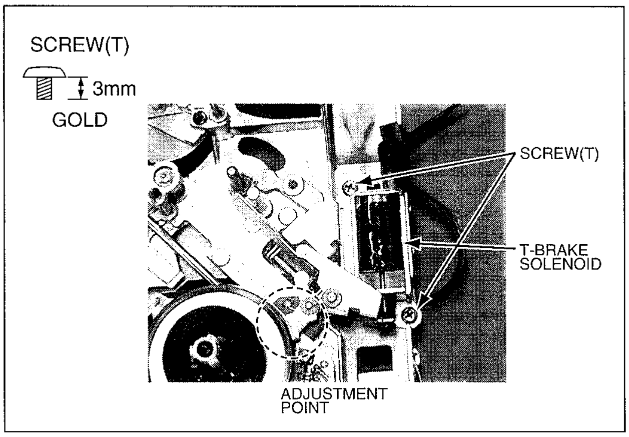

SCREW(T)
3mm
GOLD
SCREW(T)
T-BRAKE SOLENOID
ADJUSTMENT POINT

Fig. M-32

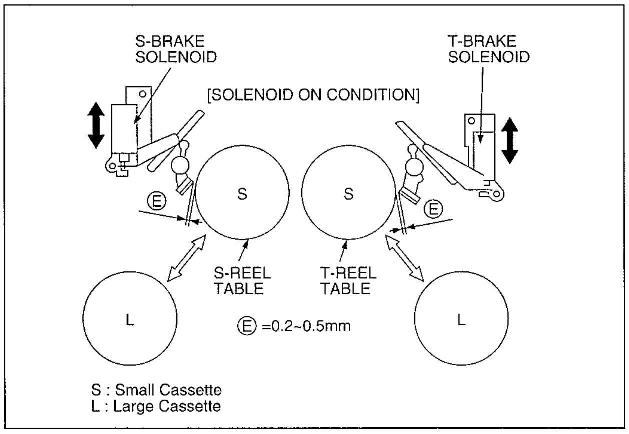

S-BRAKE SOLENOID
T-BRAKE SOLENOID
[SOLENOID ON CONDITION]
E
S
S
E
S-REEL TABLE
T-REEL TABLE
L
L
E =0.2~0.5mm
S : Small Cassette
L : Large Cassette

Fig. M-33

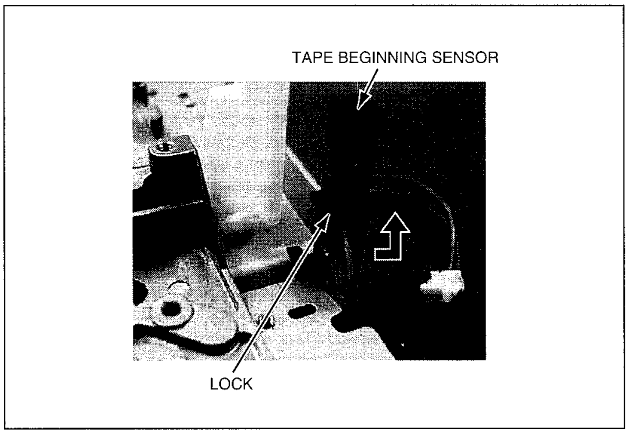

TAPE BEGINNING SENSOR
LOCK

Fig. M-34

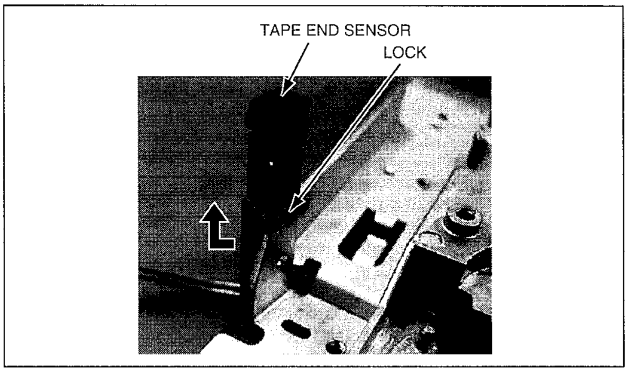

TAPE END SENSOR
LOCK

Fig. M-35

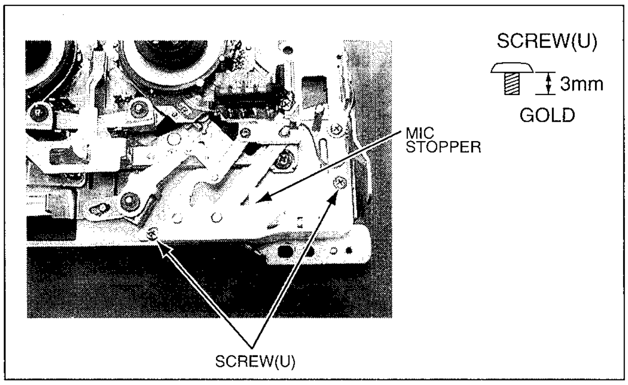

SCREW(U)
3mm
GOLD
MIC STOPPER
SCREW(U)

Fig. M-36

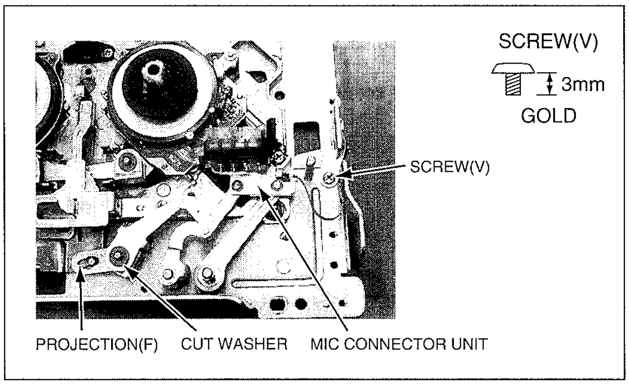

SCREW(V)
3mm
GOLD
SCREW(V)
PROJECTION(F)
CUT WASHER
MIC CONNECTOR UNIT

Fig. M-37

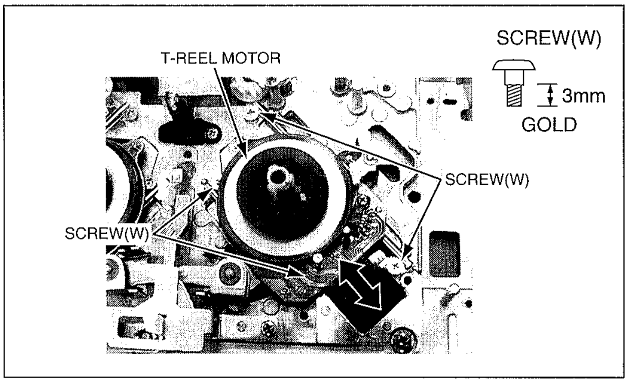

SCREW(W)
3mm
GOLD
T-REEL MOTOR
SCREW(W)
SCREW(W)

Fig. M-38

Note of installation

Fig. M-40 Set the inner and outer shafts to the T Reel Table.

Fig. M-41/42 Install the T Reel Table with 2 shafts so that the groove under the T Reel Table meets the projection (G) on the T Base Drive Arm.
Then install 4 screws (W).

3-29. S Reel Table

Fig. M-39 Unscrew 4 screws (X) and remove the S Reel Table with 2 shifts.

Note of installation

Fig. M-40 Set the inner and outer shafts to the S Reel Table.

Fig. M-41/42 Install the S Reel Table with 2 shafts so that the groove under the S Reel Table meets the projection (G) on the S Base Drive Arm.
Then install 4 screws (X).

3-30. Reel Release Angle

Fig. M-42 Unscrew 2 screws (Y) and remove the Reel Release Angle.

3-31. S and T Base Drive Arm

Fig. M-43 Remove the cut washer, S and T Base Drive Arms.

Note of installation

Fig. M-43 Install the S and T Base Arms so that the projections (H) on the S and T Base Arms meet the groove on the Slide Rod.

3-32. Communication Arm

Fig. M-44 Remove the cut washer and Communication Arm.

3-33. Tray Connection Rod and Lock Gear

Fig. M-45 Pull the Tray Connection Rod in front direction to release the lock and remove it.
Remove the Lock Gear.

Note of installation

Fig. M-46 Install the Tray Connection Rod.
Then install the Lock Gear so that the hole on the Lock Gear is aligned to the hole on the Tray Connection Rod.

3-34. Slide Rod

Fig. M-47 Remove the cut washer and Slide Rod.

3-35. Sensor LED

Fig. M-48 Unscrew 1 screw (Z) and Sensor LED.

Note of installation

Fig. M-25 After installed Sensor LED, confirm the position of the Sensor LED cable.

3-36. Capstan Motor

Fig. M-49 Unscrew 3 screws (a) and Capstan Motor.

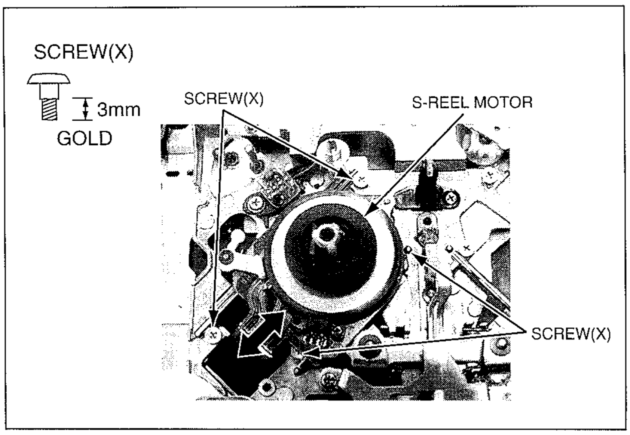

SCREW(X)
3mm
GOLD
SCREW(X)
S-REEL MOTOR
SCREW(X)

Fig. M-39

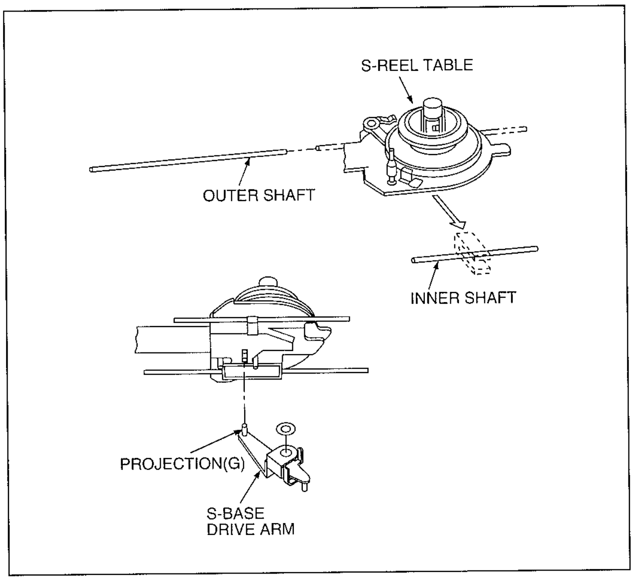

S-REEL TABLE
OUTER SHAFT
INNER SHAFT
PROJECTION(G)
S-BASE
DRIVE ARM

Fig. M-40

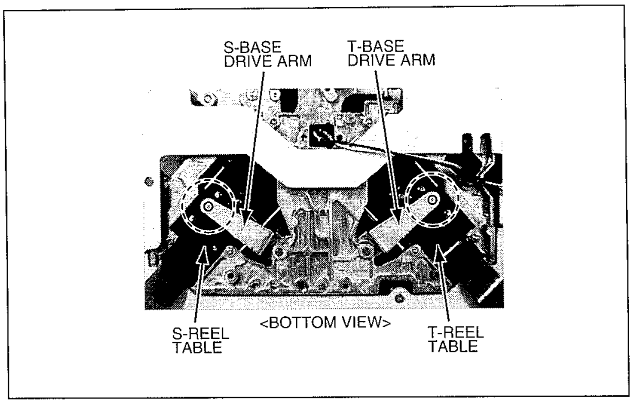

S-BASE
DRIVE ARM
T-BASE
DRIVE ARM
<BOTTOM VIEW>
S-REEL
TABLE
T-REEL
TABLE

Fig. M-41

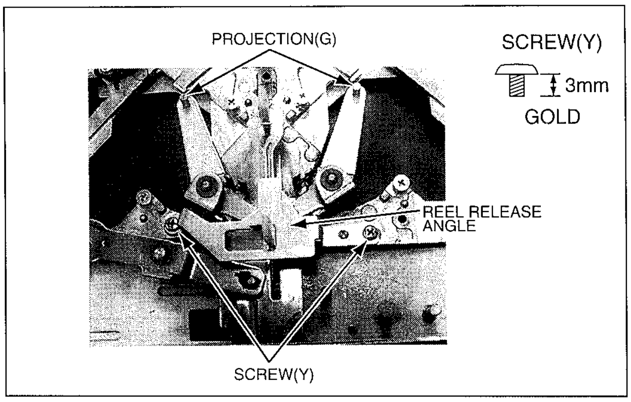

PROJECTION(G)
SCREW(Y)
3mm
GOLD
REEL RELEASE
ANGLE
SCREW(Y)

Fig. M-42

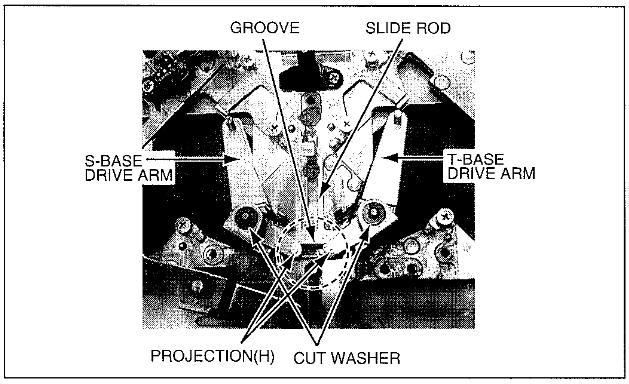

GROOVE
SLIDE ROD
S-BASE DRIVE ARM
T-BASE DRIVE ARM
PROJECTION(H)
CUT WASHER

Fig. M-43

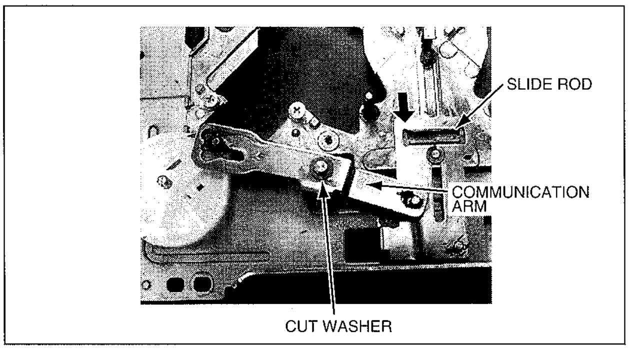

SLIDE ROD
COMMUNICATION ARM
CUT WASHER

Fig. M-44

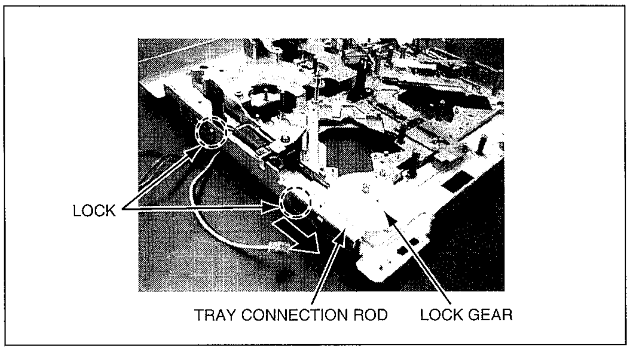

LOCK
TRAY CONNECTION ROD
LOCK GEAR

Fig. M-45

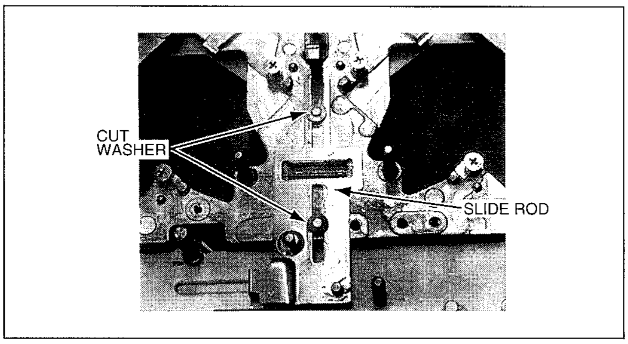

CUT WASHER
SLIDE ROD

Fig. M-47

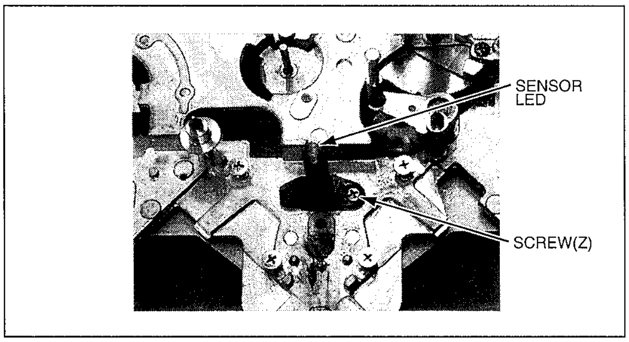

SENSOR LED
SCREW(Z)

Fig. M-48

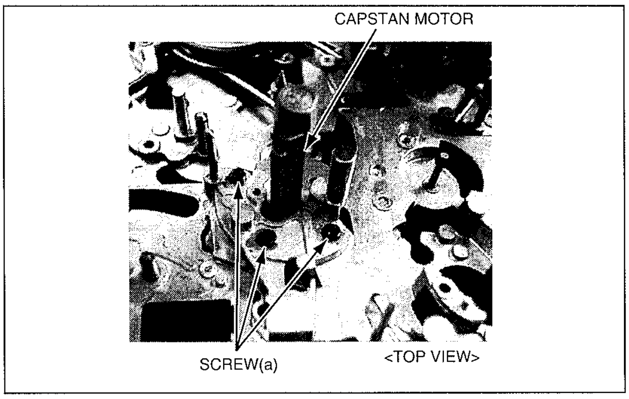

CAPSTAN MOTOR
SCREW(a)
<TOP VIEW>

Fig. M-49

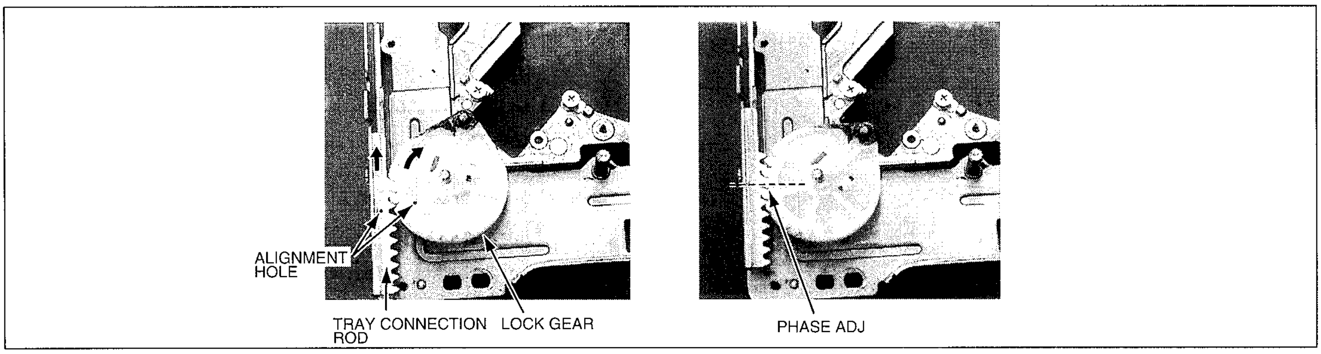
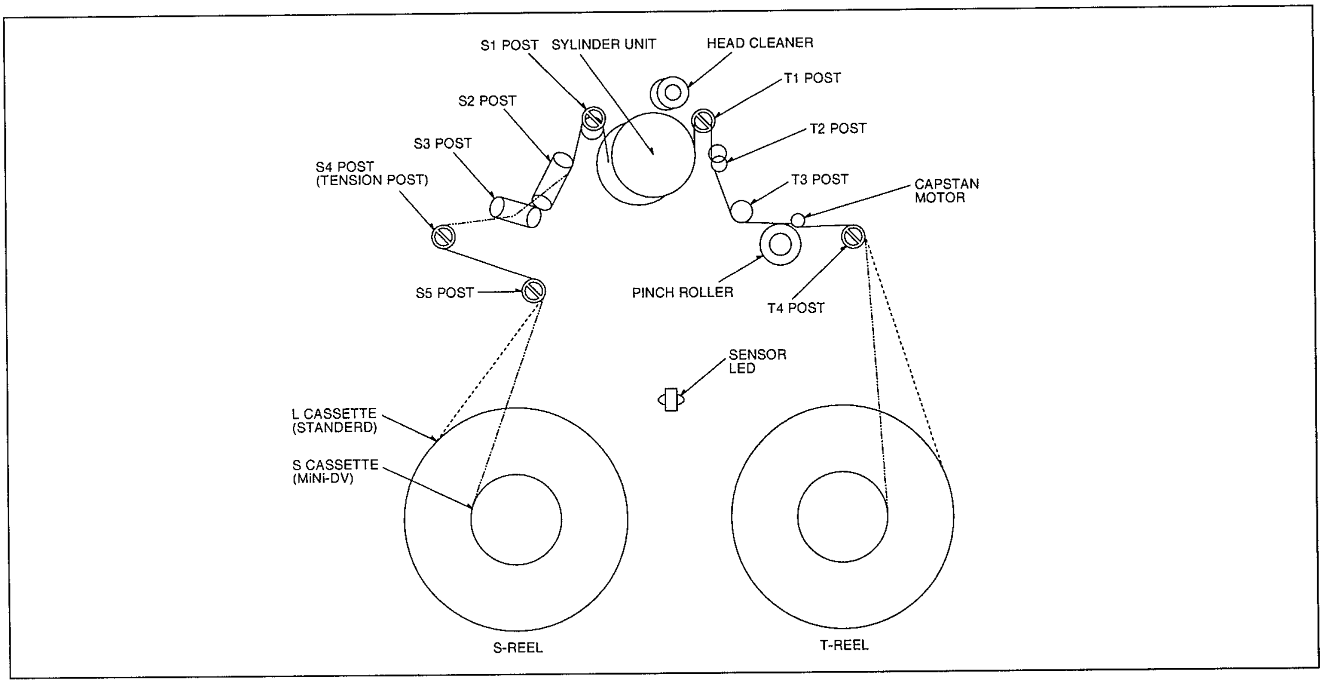

ALIGNMENT HOLE
TRAY CONNECTION ROD
LOCK GEAR
PHASE ADJ

Fig. M-46

4. Mechanical adjustment

4-1. Name of Tape Transportation



S1 POST
SYLINDER UNIT
HEAD CLEANER
T1 POST
S2 POST
T2 POST
S3 POST
S4 POST (TENSION POST)
T3 POST
CAPSTAN MOTOR
S5 POST
PINCH ROLLER
T4 POST
SENSOR LED
L CASSETTE (STANDERD)
S CASSETTE (MiNi-DV)
S-REEL
T-REEL

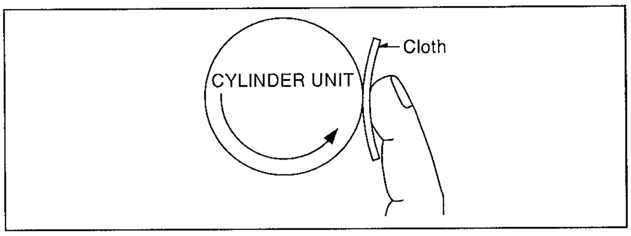
Fig. M-1

4-2. Cleaning Procedures

Make sure the power is off before cleaning. Use ethanol (more than 99% purity) as cleaning liquid.

4-2-1. Cleaning of Video Head

Clean heads by applying even pressure and rotating cylinder a few times. Never wipe in up and down motion. Never touch a cylinder by naked hand. First wipe with a cloth soaked by cleaning liquid. Then wipe with dry cloth.

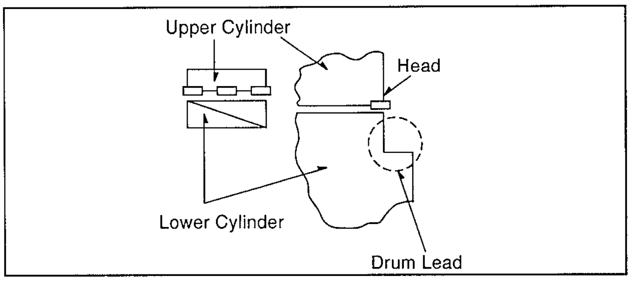


Cloth
CYLINDER UNIT

Fig. M-2

4-2-2. Cleaning of Drum Lead

Be careful not to touch a head chip. Clean the drum lead with a pick.



Upper Cylinder
Head
Lower Cylinder
Drum Lead

Fig. M-3

4-2-3. Cleaning of Pinch Roller and Capstan

Wipe the Pinch Roller and Capstan with a cloth soaked by cleaning liquid.

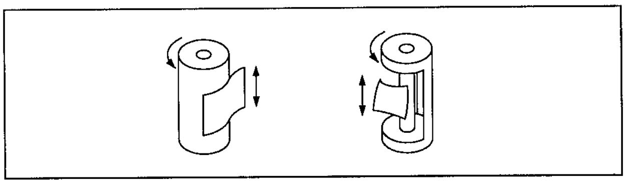


Fig. M-4

4-2-4. Cleaning of each Post

Wind a cloth on a pick. Wipe each post dry with that pick. Wipe again with a dry cloth. For metal posts wipe with cleaning liquid. Then wipe dry again.

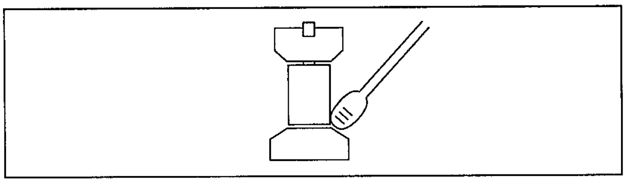


Fig. M-5

4-3. Reel Offset and Tension Arm Adjustment

Note:

Before beginning adjustment from the item 4-4., the "Reel Offset" and "Tension Arm Adjustment" described on the "5. Electrical Adjustment" must be done as shown in Fig. E-1.

4-4. T4, S4 and S5 Post Height Pre-Adjustment

Note :

Before this adjustment, the Servo Adjustment must be done.
(Refer to "5. Electrical Adjustment".)

1. Confirm the Reel Table is located at L (Standard) cassette position. If it is located at S (Mini-DV) cassette position, turn power on and insert L cassette and eject the L cassette.
2. Turn power off. Remove the Front Loading Unit. Then place the Mech. Plate (VFK1348A) on the Reel Table.
3. Place the Post Height Adj. Tool (VFK1450) on the Mech. Plate as shown in Fig. M-6 and adjust the T4 post height by using the Box Driver (VFK1151).
4. Adjust the S4 and S5 post height by using the Post Driver (VFK1278).
5. Then turn S4 and S5 posts 1 round counterclockwise from lower limit position.

T4 Post : Lower Limit (-0.5 +/- 0.05 mm)
S4 Post : Lower Limit (+0.2 +/- 0.05 mm)
S5 Post : Lower Limit (+0.2 +/- 0.05 mm)

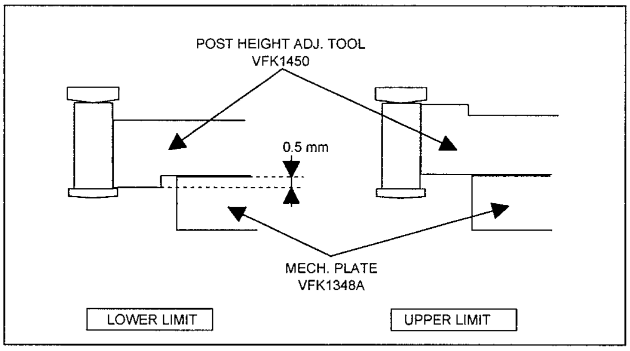

POST HEIGHT ADJ. TOOL
VFK1450
0.5 mm
MECH. PLATE
VFK1348A
LOWER LIMIT
UPPER LIMIT

Fig. M-6

4-5. Tape Pass Adjustment Procedures

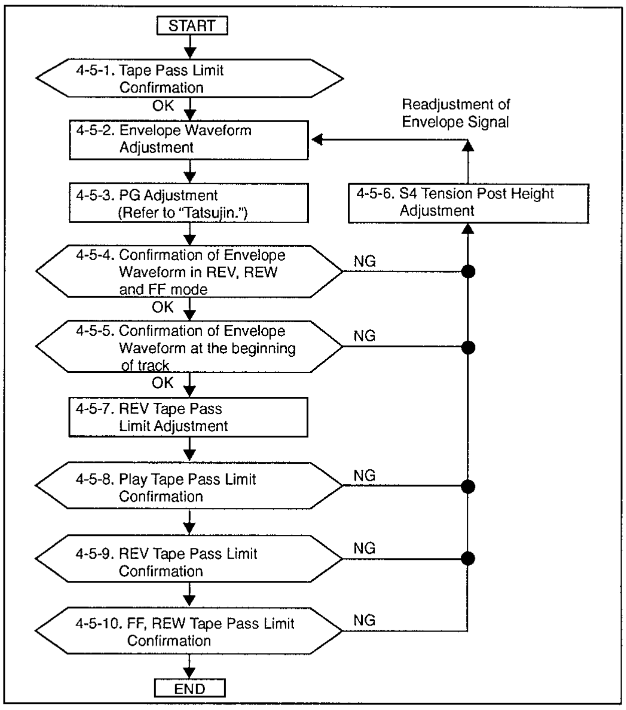

START
4-5-1. Tape Pass Limit Confirmation
OK
4-5-2. Envelope Waveform Adjustment
Readjustment of Envelope Signal
4-5-3. PG Adjustment (Refer to "Tatsujin.")
4-5-6. S4 Tension Post Height Adjustment
4-5-4. Confirmation of Envelope Waveform in REV, REW and FF mode
NG
OK
4-5-5. Confirmation of Envelope Waveform at the beginning of track
NG
OK
4-5-7. REV Tape Pass Limit Adjustment
4-5-8. Play Tape Pass Limit Confirmation
NG
4-5-9. REV Tape Pass Limit Confirmation
NG
4-5-10. FF, REW Tape Pass Limit Confirmation
NG
END

Fig. M-7

4-5-1. Tape Pass Limit Confirmation

1. Place unit into Play mode, and adjust the height of each post do not to occurred tape damage.
2. Regarding the S1 Post and T1 Post, refer to item “4-5-2. Envelope Waveform Adjustment”.
3. Confirm the tape pass limit of each post as shown in Fig. M-8.

POST NAME	TAPE LIMIT							ADJUSTMENT PORTION	TAPE PASS LIMIT
	A	B	C	D	E	F	G		
4-5-1. Play Tape Pass Limit Confirmation									
S5 Post	×	×	○	○	×	×	×	S5 Post	Lower Limit
S4 (Tension) Post	×	×	×	○	×	×	×	S4 (Tension) Post	Lower Limit
S1 Post	×	○	×	×	×	×	×	S1 Post	Envelope Adjustment
T1 Post	×	○	×	×	×	×	×	T1 Post	Envelope Adjustment
T4 Post	×	×	○	×	×	×	×	T4 Post Arm Nut	Free Limit
4-5-7. REV Tape Pass Limit Adjustment									
S5 Post	×	○	○	○	×	×	×	S5 Post	Lower Limit
S4 (Tension) Post	×	×	○	○	×	×	×	S4 (Tension) Post	Lower Limit
S1 Post	×	○	×	×	×	×	×	S1 Post	Envelope Adjustment
T1 Post	×	○	○	○	×	×	×	T1 Post	Envelope Adjustment
T4 Post	×	×	○	×	×	×	×	T4 Post Arm Nut	Free Limit
4-5-8. Play Tape Pass Limit Confirmation									
S5 Post	×	×	○	○	×	×	×	S5 Post	Lower Limit
S4 (Tension) Post	×	×	×	○	×	×	×	S4 (Tension) Post	Lower Limit
S1 Post	×	○	×	×	×	×	×	S1 Post	Envelope Adjustment
T1 Post	×	○	×	×	×	×	×	T1 Post	Envelope Adjustment
T4 Post	×	×	×	○	×	×	×	T4 Post Arm Nut	Free Limit
4-5-9. REV Tape Pass Limit Confirmation									
S5 Post	×	○	○	○	×	×	×	S5 Post	Lower Limit
S4 (Tension) Post	×	○	○	○	×	×	×	S4 (Tension) Post	Lower Limit
S1 Post	×	○	×	×	×	×	×	S1 Post	Envelope Adjustment
T1 Post	×	○	○	○	×	×	×	T1 Post	Envelope Adjustment
T4 Post	×	○	○	○	×	×	×	T4 Post Arm Nut	Free Limit
4-5-10. FF / REW Tape Pass Limit Confirmation									
S5 Post	×	○	○	○	×	×	×	S5 Post	Lower Limit
S4 (Tension) Post	×	×	○	○	×	×	×	S4 (Tension) Post	Lower Limit
S1 Post	×	○	×	×	×	×	×	S1 Post	Envelope Adjustment
T1 Post	×	○	○	○	×	×	×	T1 Post	Envelope Adjustment
T4 Post	×	○	○	○	×	×	×	T4 Post Arm Nut	Free Limit

○ : means acceptable
× : means not acceptable

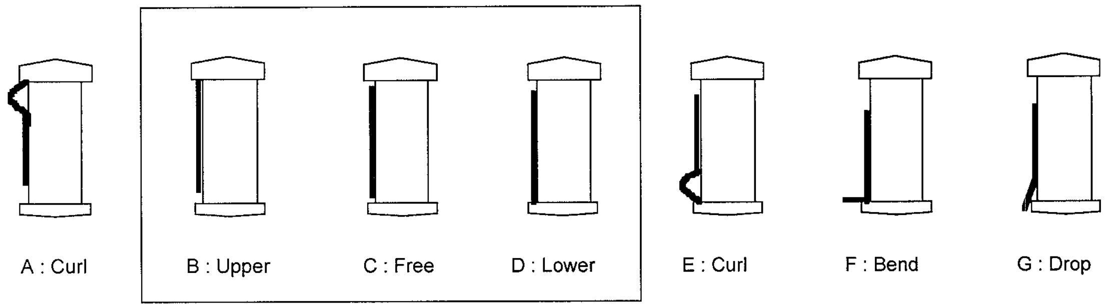
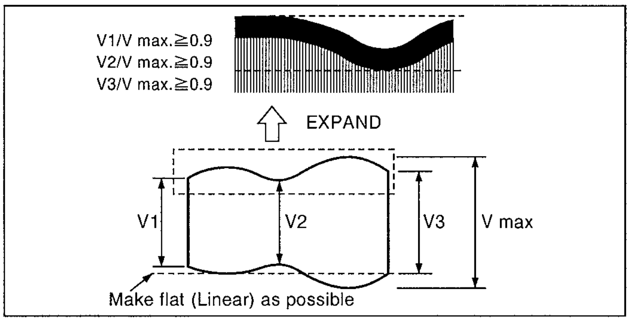


Fig. M-8

4-5-2. Envelope Waveform Adjustment

<Pre-Adjustment>

1. Connect the "Tatsujin Kit" as shown in Fig. 2-5 (Section 1). Then starts the RF / VITERBI Adjustment in the Video Section.
2. Connect the oscilloscope to "Envelope" and "GND" on the Measuring TP Board (VFK1409). Then playback the Alignment Tape (VFM3110EDS) and adjust S1 and T1 posts so that the envelope output is within following specification (Fig. M-9). Use "HID1" as a trigger. When the S1 and T1 posts are adjusted, first raise the post height and make small the entrance and exit side of the envelope, then down the post until envelope becomes flat.
3. Adjust T1 post and makes exit side of the envelope flat then adjust S1 post.



Make flat (Linear) as possible

Fig. M-9

<Fine Adjustment>

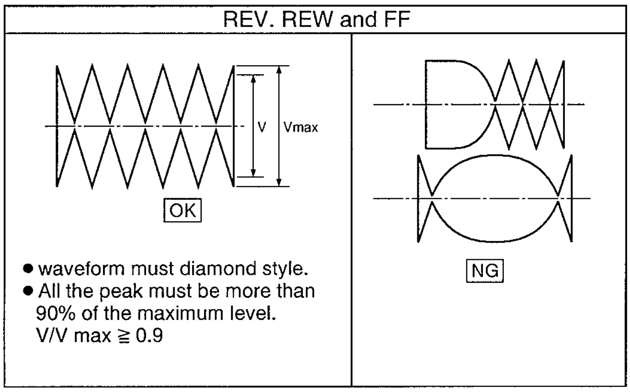
1. Playback the self recorded tape and readjust S1 and T1 posts so that the BER counter number becomes the minimum.
2. After adjustment, unload the tape then loading the tape. Then confirm the waveform style and BER counter number is minimized.

4-5-3. PG Adjustment

Since the adjustment procedure for "PG Adjustment" is supported only "Tatsujin Kit", refer to "Tatsujin" software.

4-5-4. Confirmation of Envelope Waveform in REV, REW and FF mode

1. Connect the "Tatsujin Kit" as shown in Fig. 2-5 (Section 1).
2. Connect the oscilloscope to "Envelope" and "GND" on the Measuring TP Board (VFK1409).
3. Confirm the Envelope Waveform signal is in the specification in the REV, REW and FF mode as shown in Fig. M-10.
4. If it is out of specification, after adjusting the "4-5-6. S4 Tension Post Height Adjustment", confirm this "Envelope Waveform in REV, REW and FF mode" again.

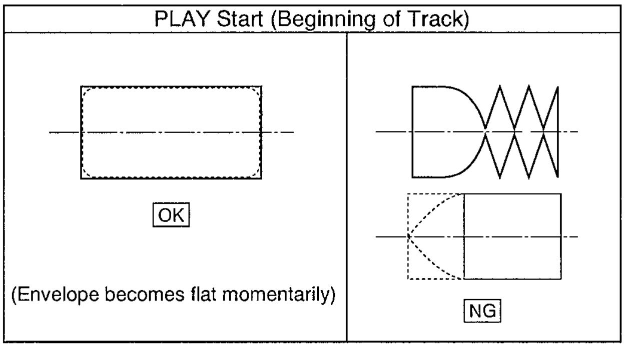


- waveform must diamond style.
- All the peak must be more than 90% of the maximum level. V/V max ≧ 0.9

Fig. M-10

4-5-5. Confirmation of Envelope Waveform at the beginning of track

1. Observe the Envelope Waveform signal by oscilloscope and confirm the envelope signal is in the specification in the transition from FF to Play, from REW to Play, from REV to Play and from Loading completion to Play.
2. If it is out of specification, after adjusting the "4-5-6. S4 Tension Post Height Adjustment", confirm this "Envelope Waveform at beginning of track" again.



(Envelope becomes flat momentarily)

Fig. M-11

4-5-6. S4 Tension Post Height Adjustment

Note :

This adjustment should be done when the "4-5-2. Envelope Waveform Adj.", "4-5-4. Confirmation of Envelope in REV, REW and FF mode" or "4-5-5. Confirmation of Envelope Waveform at the beginning of Track" can not be achieved the specification.

1. Rotate the S4 Tension Post height 90 degrees counterclockwise from lower limit position.
2. Adjust S1 and T1 post height adjustment again. Refer to the "4-5-2. Envelope Waveform Adjustment".
3. Confirm the "Play Start Envelope Waveform". Refer to the "4-5-5. Confirmation of Envelope Waveform at the beginning of Track".
4. If it is not in the specification, repeat item 1 to 3. The maximum rotation angle is 360 degrees.
5. Even the height is still out of specification, confirm the "4-4. T4, S4 and S5 Post Height Pre-Adjustment".

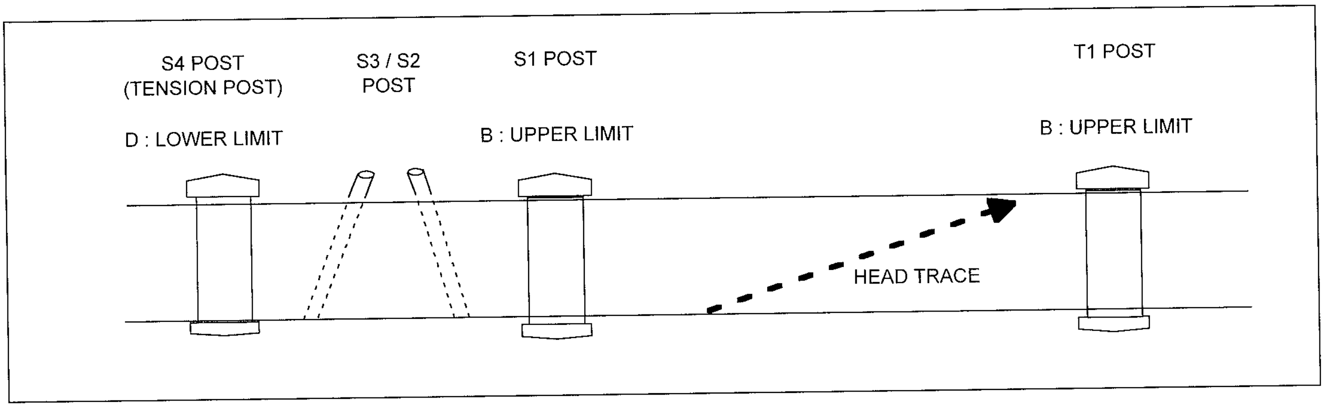

S4 POST
(TENSION POST)
S3 / S2
POST
S1 POST
T1 POST
D : LOWER LIMIT
B : UPPER LIMIT
B : UPPER LIMIT
HEAD TRACE

Fig. M-12

4-5-7. REV Tape Pass Limit Adjustment

1. Place unit into REV mode, and adjust T4 Post so that the lower limit touches the tape.
2. Confirm the tape pass limit of each post as shown in Fig. M-8.
3. This adjustment must be done after "4-5-2. Envelope Waveform Adjustment".

4-5-8. Play Tape Pass Limit Confirmation

1. Place the unit into Play mode, and confirm the each post limit is in the specification as shown in Fig. M-8.
2. This adjustment must be done after "4-5-2. Envelope Waveform Adjustment".
3. Regarding T4 Post, confirm and adjust this confirmation alternately with "4-5-9. REV Tape Pass Limit Confirmation".
4. Confirm the tape pass limit for both L and S cassettes.

4-5-9. REV Tape Pass Limit Confirmation

1. Place the unit into REV mode, and confirm the each post limit is in the specification as shown in Fig. M-8.
2. This adjustment must be done after "4-5-2. Envelope Waveform Adjustment".
3. This adjustment should be done alternately with "4-5-8. Play Tape Pass Limit Confirmation".
4. Confirm the tape pass limit for both L and S cassettes.

4-5-10. FF, REW Tape Pass Limit Confirmation

1. Place the unit into FF and REW mode, and confirm the each post limit is in the specification as shown in Fig. M-8.
2. This adjustment must be done after "4-5-2. Envelope Waveform Adjustment".
3. Confirm the tape pass limit for both L and S cassettes.

4-6. Cap. Tilt Adjustment

1. Remove the Pinch Solenoid and Pinch Arm.
2. Loosen the adjustment screw (a) and set the Cap. Tilt Adj. Plate (VFK1469) between Capstan Motor and Mechanism Caassis.
3. Turn the adjustment screw (a) to clockwise direction slowly until the Capstan Motor just touch to the Cap. Tilt Adj. Plate as shown in Fig. M-13.

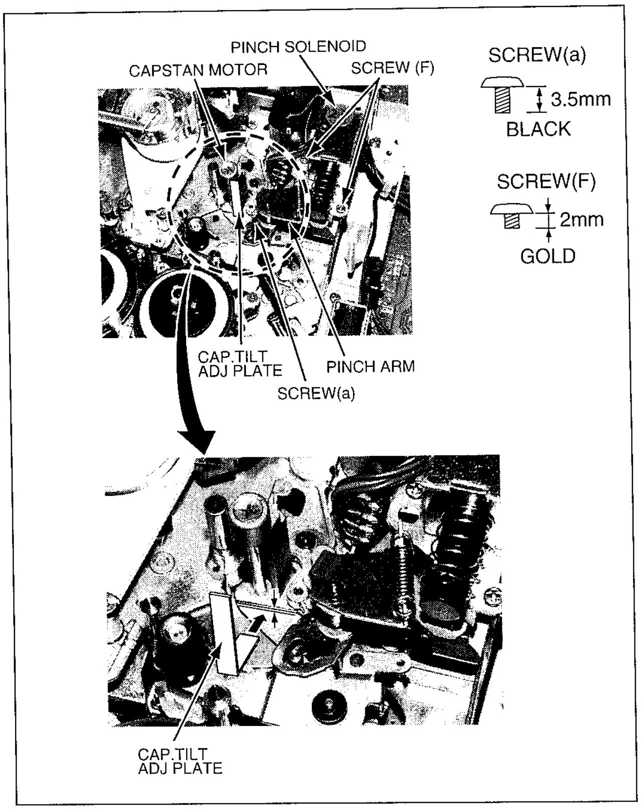

PINCH SOLENOID
CAPSTAN MOTOR
SCREW (F)
SCREW(a)
3.5mm
BLACK
SCREW(F)
2mm
GOLD
CAP.TILT
ADJ PLATE
PINCH ARM
SCREW(a)
CAP.TILT
ADJ PLATE

Fig. M-13

5. Electrical Adjustment

Since the "PG Shifter Adj." and Video adjustments except "EE Y Level Adj." are required the "Tatsujin Kit", these adjustment procedures are described on "Tatsujin" software.

1. Servo Circuit

1-1. T and S Reel Offset Adj.

[Take up Reel Offset Adj.]

TP	ADJ	MODE	Jig & Tool
TP2701 (T ET) TP2702 (T GND)	VR2702 (T VR)	Cassette Down (Stop)	———
TAPE	M. EQ	SPEC.	
Mini DV	D.V.M.	0 +/- 1mV	

[T Reel Offset Adj.]

1. Set a cassette on the tray and make the cassette down condition.
2. Connect the Digital Volt Meter between TP2701 (T ET) and TP2702 (T GND).
3. Adjust VR2702 (T VR) so that the voltage becomes 0 +/- 1mV.

[Supply Reel Offset Adj.]

TP	ADJ	MODE	Jig & Tool
TP2703 (S ET) TP2704 (S GND)	VR2701 (S VR)	Cassette Down (Stop)	———
TAPE	M. EQ	SPEC.	
Mini DV	D.V.M.	0 +/- 1mV	

[S Reel Offset Adj.]

1. Set a cassette on the tray and make the cassette down condition.
2. Connect the Digital Volt Meter between TP2703 (S ET) and TP2704 (S GND).
3. Adjust VR2701 (S VR) so that the voltage becomes 0 +/- 1mV.

Tension Adjustment

When this adjustment is done, melt the grew of the adjustment screws as shown in Fig. E-6

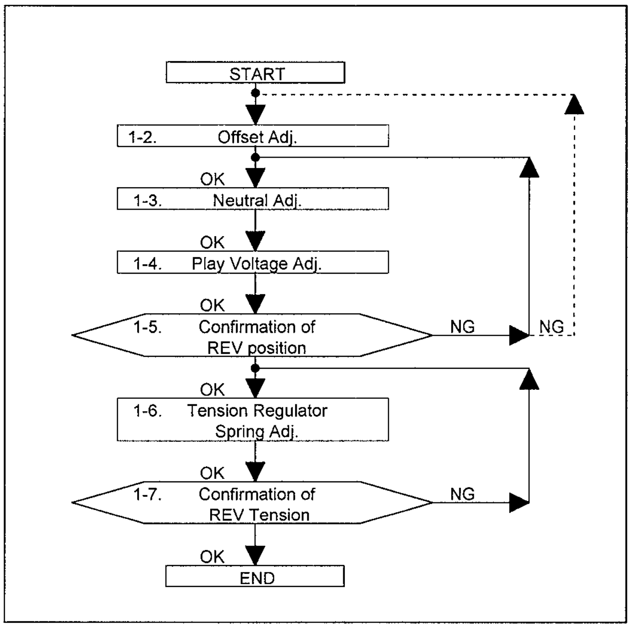

START
1-2. Offset Adj.
OK
1-3. Neutral Adj.
OK
1-4. Play Voltage Adj.
OK
1-5. Confirmation of REV position
NG
NG
OK
1-6. Tension Regulator Spring Adj.
OK
1-7. Confirmation of REV Tension
NG
OK
END

Fig. E-1

1-2.Tension Arm Offset Adj.

TP	ADJ	MODE	Jig & Tool
TP6502 (TP2) TP6503 (TP3)	VR6501 (TEN SET)	Cassette Down (Stop)	———
TAPE	M. EQ	SPEC.	
Mini DV	D.V.M.	0 +/- 0.03V	

1. Set a cassette on the tray and make the cassette down condition.
2. Connect the Digital Volt Meter between TP6502 (TP2) and TP6503 (TP3).
3. Adjust VR6501 (TEN SET) so that the voltage becomes 0 +/- 0.03V.

1-3. Tension Arm Neutral Adj.

TP	ADJ	MODE	Jig & Tool
TP6502 (TP2) TP6503 (TP3)	Tension Regulator Base	Loading Condition (Service Mode 7)	VFK1208 (Black with Hole)
TAPE	M. EQ	SPEC.	
———	D.V.M.	0 +/- 0.06V	

1. Remove the Tray Unit.
2. Set the VFK1208 to the Supply Post Base (A) as shown in Fig. E-2.
3. Place the unit into the no tape-loading mode by using Service Mode described as follows.
   1. Press the "FF" and "Eject" buttons simultaneously in eight times toset the Service Mode No. 7.
   2. Set the mechanism to loading condition by pressing the "Play" button.

      Play button : Loading direction
      Stop button : Unloading direction
4. Connect the Digital Volt Meter between TP6502 (TP2) and TP6503 (TP3).
5. Loosen screw (A).
6. Adjust the Tension Regulator Base so that the voltage becomes 0 +/- 0.06V by moving the (D) portion with tweezers that are not magnetized.
7. Then tighten the screw (A).

Caution

Don't touch the magnetized driver or tweezers to S-Reel FG magnet portion, when the "D" portion is adjusting.

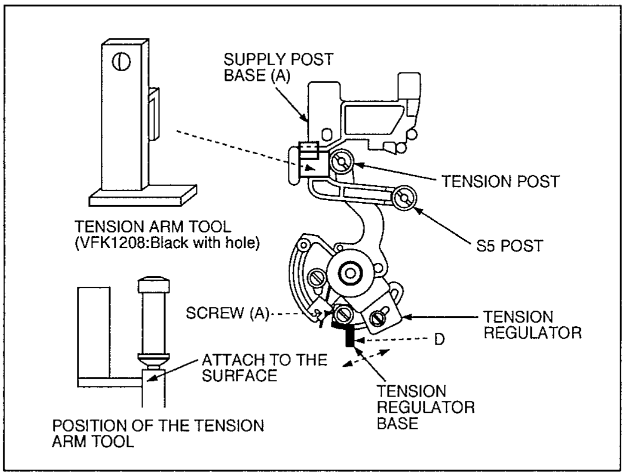

SUPPLY POST BASE (A)
TENSION POST
S5 POST
TENSION ARM TOOL (VFK1208:Black with hole)
SCREW (A)
TENSION REGULATOR
D
ATTACH TO THE SURFACE
TENSION REGULATOR BASE
POSITION OF THE TENSION ARM TOOL

Fig. E-2

1-4. Tension Arm Play Voltage Adj.

TP	ADJ	MODE	Jig & Tool
TP6502 (TP2) TP6503 (TP3)	VR6502 (TEN GAIN)	Loading Condition (Service Mode 7)	VFK1156 (Black)
TAPE	M. EQ	SPEC.	
————	D.V.M.	0.92 +/- 0.03V	

1. Remove the Tray Unit.
2. Set the VFK1156 to the Supply Post Base (A) as shown in Fig. E-3.
3. Place the unit into the no tape-loading mode by using Service Mode.
4. Connect the Digital Volt Meter between TP6502 (TP2) and TP6503 (TP3).
5. Adjust the VR6502 (TEN GAIN) so that the voltage becomes 0.92 +/- 0.03V.

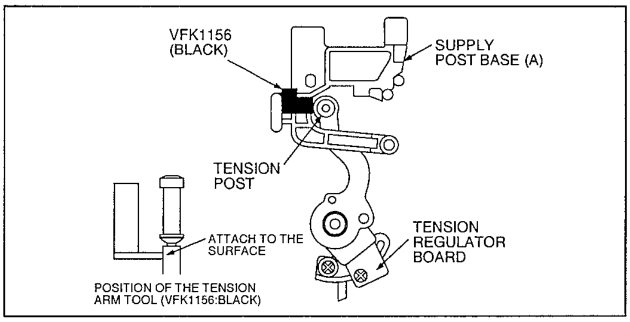

VFK1156
(BLACK)
SUPPLY
POST BASE (A)
TENSION
POST
ATTACH TO THE
SURFACE
TENSION
REGULATOR
BOARD
POSITION OF THE TENSION
ARM TOOL (VFK1156:BLACK)

Fig. E-3

1-5. Confirmation of REV position of the Tension Arm

TP	ADJ	MODE	Jig & Tool
TP6502 (TP2) TP6503 (TP3)	————	Loading Condition (Service Mode 7)	VFK1155 (White)
TAPE	M. EQ	SPEC.	
————	D.V.M.	-0.92 +/- 0.2V	

1. Remove the Tray Unit.
2. Set the VFK1155 to the Supply Post Base (A) as shown in Fig. E-4.
3. Place the unit into the no tape loading mode by using Service Mode.
4. Connect the Digital Volt Meter between TP6502 (TP2) and TP6503 (TP3).
5. Confirm the voltage is in the specification.
6. If it is out of specification, readjust "1-3. Tension Arm Neutral Adj."and "1-4. Tension Arm Play Voltage Adj.".
7. If it is still out of specification, replace the Tension Post unit and readjust the Tension Arm Adjustment from "1-2. Tension Arm Offset Adj.".

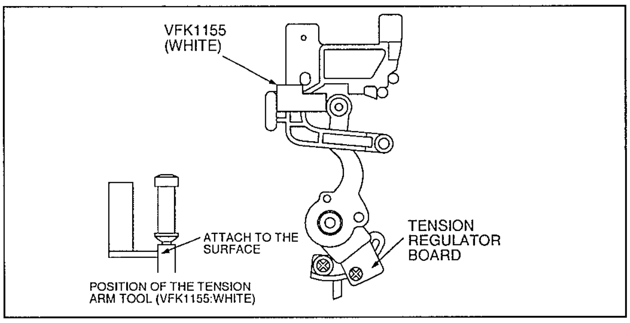

VFK1155
(WHITE)
ATTACH TO THE
SURFACE
TENSION
REGULATOR
BOARD
POSITION OF THE TENSION
ARM TOOL (VFK1155:WHITE)

Fig. E-4

1-6. Tension Regulator Spring Adj.

TP	ADJ	MODE	Jig & Tool
TP6502 (TP2) TP6503 (TP3) Tension Post	Tension Regulator Spring Position	Loading Condition (Service Mode 7)	VFK1188 (Dial Tension Gauge)
TAPE	M. EQ	SPEC.	
————	D.V.M. Dial Tension Gauge	0.92 V (Play Position) 11 +/- 1gf	

1. Remove the Tray Unit.
2. Place the unit into the no tape loading mode by using Service Mode.
3. Connect the Digital Volt Meter between TP6502 (TP2) and TP6503 (TP3).
4. When pressing the R portion of the Tension Post in arrow direction by Dial Tension Gauge (VFK1188) until the voltage becomes 0.92V (Play Position) as shown in Fig. E-5, loosen screw (C) and adjust the Tension Regulator Spring position (Hook B) so that the tension is in the specification 11 +/- 1gf.
5. Tighten screw (C).

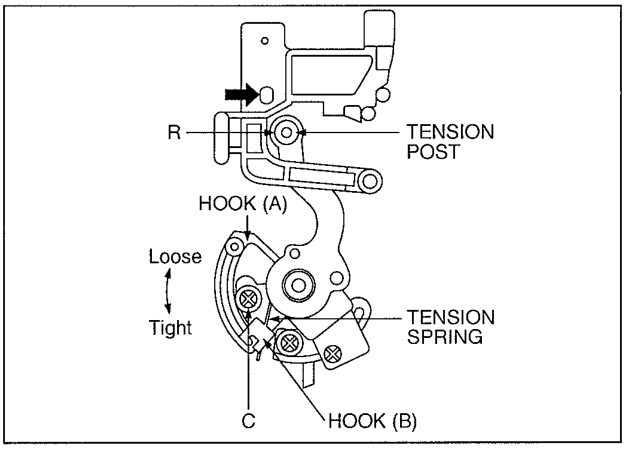

R
TENSION
POST
HOOK (A)
Loose
Tight
TENSION
SPRING
C
HOOK (B)

Fig. E-5

1-7. Confirmation of REV Tension

TP	ADJ	MODE	Jig & Tool
TP6502 (TP2) TP6503 (TP3) Tension Post	Tension Regulator Spring Position	Loading Condition (Service Mode 7)	VFK1188 (Dial Tension Gauge)
TAPE	M. EQ	SPEC.	
————	D.V.M. Dial Tension Gauge	-0.92 V (REV Position) 18 +/- 2gf	

1. Remove the Tray Unit.
2. Place the unit into the no tape loading mode by using Service Mode.
3. Connect the Digital Volt Meter between TP6502 (TP2) and TP6503 (TP3).
4. When pressing the R portion of the Tension Post in arrow direction by Dial Tension Gauge (VFK1188) until the voltage becomes -0.92V (REV Position) as shown in Fig. E-5, confirm the tension is in the specification 18 +/- 2gf.
5. If it is not, adjust "1-6. Tension Regulator Spring Adj." again.
6. Grew the screw A, B and C after Tension Arm Adjustment. The grew quantity at B portion is half of A and C portions as shown in Fig. E-6.

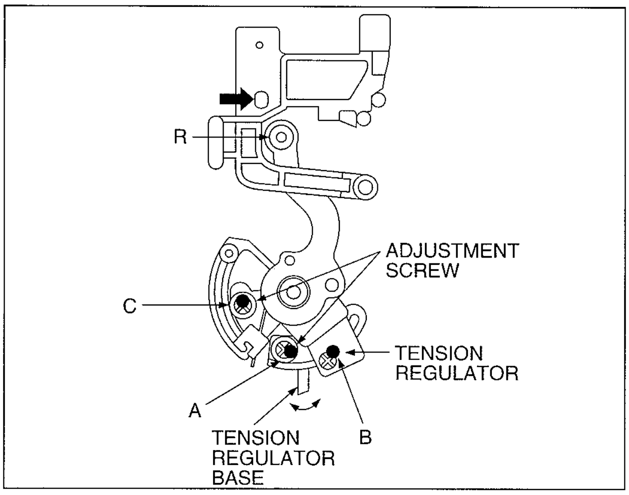


Fig. E-6

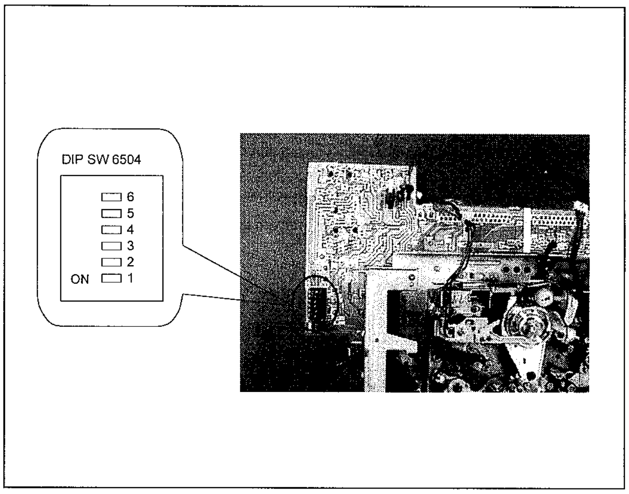


Fig. E-7

1-8. Supply and Take-up Photo Sensor Sensitivity Adj.

[Supply Photo Sensor Adj.]

TP	ADJ	MODE	Jig & Tool
TP6501 TP6504 (S Photo)	DIP SW (S6504)	Stop	VFK1426 (6%) VFK1217 (49%) Sensor Cassette
TAPE	M. EQ	SPEC.	
Sensor Cassette	D.V.M.	0.5 - 1.0 V Refer to Fig. E-8	

[Supply Photo Sensor Adj.]

1. Set all of the DIP SW (S6504) to ON.
2. Insert the 6% Sensor Cassette VFK1426.
3. Connect the Digital Volt Meter between TP6501 and TP6504 (S Photo).
4. Adjust the DIP SW as shown in Fig. E-8.
5. Confirm that the tape is not loaded when installing the 49% Sensor Cassette VFK1217.
6. If the tape is loaded when install the 49% Sensor Cassette readjust this adjustment.

[Take-up Photo Sensor Adj.]

TP	ADJ	MODE	Jig & Tool
TP6501 TP6505 (T Photo)	DIP SW (S6504)	Stop	VFK1426 (6%) VFK1217 (49%) Sensor Cassette
TAPE	M. EQ	SPEC.	
Sensor Cassette	D.V.M.	0.5 - 1.0 V Refer to Fig. E-9	

[Take-up Photo Sensor Adj.]

1. Set all of the DIP SW (S6504) to ON.
2. Insert the 6% Sensor Cassette VFK1426.
3. Connect the Digital Volt Meter between TP6501 and TP6505 (T Photo).
4. Adjust the DIP SW as shown in Fig. E-9
5. Confirm that the tape is not loaded when installing the 49% Sensor Cassette VFK1217.
6. If the tape is loaded when install the 49% Sensor Cassette, readjust this adjustment.

[Supply Sensor]

TP6501 - TP6504 VOLTAGE	DIP SW (S6504) ADJUSTMENT PROCEDURES	RESULT OF THE ADJUSTMENT	REMARKS
When the voltage is 0 - 0.5 V.	1. Change only SW 6 to OFF 2. Change only SW 5 to OFF 3. Change SW 5 and 6 to OFF 4. Change only SW 4 to OFF 5. Change SW 4 and 6 to OFF 6. Change SW 4 and 5 to OFF	If the voltage is not 0.5 - 1.0 V, proceed to the item 2. If the voltage is not 0.5 - 1.0 V, proceed to the item 3. If the voltage is not 0.5 - 1.0 V, proceed to the item 4. If the voltage is not 0.5 - 1.0 V, proceed to the item 5. If the voltage is not 0.5 - 1.0 V, proceed to the item 6.	If the voltage is in the specification (0.5 - 1.0 V), this adjustment is done.
When the voltage is 0.5 - 1.0 V.	This adjustment is not necessary.		
When the voltage is more that 1.0V.	NG Replace the Supply Photo Sensor. Then readjust this adjustment.		

Fig. E-8 Supply Photo Sensor Adj.

[Take-up Sensor]

TP6501 - TP6505 VOLTAGE	DIP SW (S6504) ADJUSTMENT PROCEDURES	RESULT OF THE ADJUSTMENT	REMARKS
When the voltage is 0 - 0.5 V.	1. Change only SW 1 to OFF 2. Change only SW 2 to OFF 3. Change SW 1 and 2 to OFF 4. Change only SW 3 to OFF 5. Change SW 1 and 3 to OFF 6. Change SW 2 and 3 to OFF	If the voltage is not 0.5 - 1.0 V, proceed to the item 2. If the voltage is not 0.5 - 1.0 V, proceed to the item 3. If the voltage is not 0.5 - 1.0 V, proceed to the item 4. If the voltage is not 0.5 - 1.0 V, proceed to the item 5. If the voltage is not 0.5 - 1.0 V, proceed to the item 6.	If the voltage is in the specification (0.5 - 1.0 V), this adjustment is done.
When the voltage is 0.5 - 1.0 V.	This adjustment is not necessary.		
When the voltage is more that 1.0V.	NG Replace the Take-up Photo Sensor. Then readjust this adjustment.		

Fig. E-9 Take-up Photo Sensor Adj.

2. Video Circuit

2-1. Phase Difference of Y/C Sepa. V Blanking Pulse Adj.

TP	ADJ	MODE	Input
TP30001 TP30005	VR30001	Stop (E-E)	Colour Bar Signal
TAPE	M. EQ	SPEC.	
———	Oscilloscope	Phase Difference T 24±0.5H	

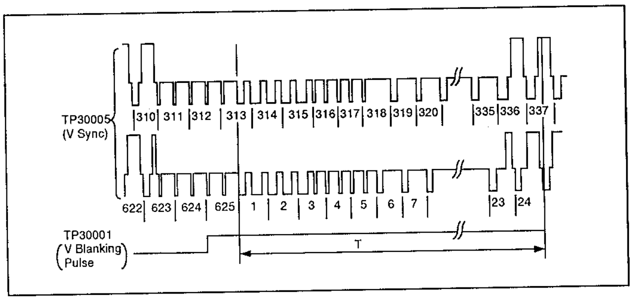

TP30005
(V Sync)
310
311
312
313
314
315
316
317
318
319
320
335
336
337
622
623
624
625
1
2
3
4
5
6
7
23
24
TP30001
(V Blanking Pulse)
T

Fig. E-10

2-2. Phase Difference of Y/C Sepa. H blanking Pulse Adj.

TP	ADJ	MODE	Input
TP30004 TP30005	VR30003	Stop (E-E)	Colour Bar Signal
TAPE	M. EQ	SPEC.	
———	Oscilloscope	Phase Difference T=9.0±0.25µsec.	

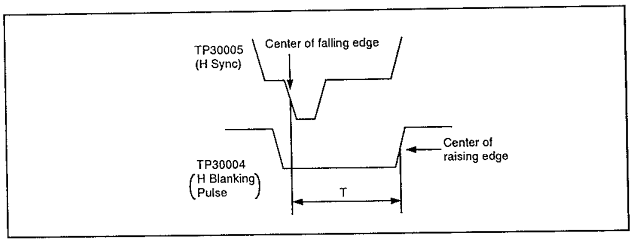

TP30005
(H Sync)
Center of falling edge
Center of raising edge
TP30004
(H Blanking Pulse)
T

Fig. E-11

2-3. PAL Encoder Free Run Frequency Adj.

TP	ADJ	MODE	Input
TP30009 (TP30010 TP3007, 8)	VC30002	Free Run	———
TAPE	M. EQ	SPEC.	
———	Frequency Counter	Output Freq.= 4.433619MHz±50Hz	

1. Connect TP30010 to GND and put the unit into Free Run mode.
2. Apply 5V DC power to TP30007 and 2.6V DC to TP30008.

2-4.Edit OSD Colour Burst Clock Frequency Adj.

TP	ADJ	MODE	Input
TP30003 (TP30002)	VC30001	Stop (E-E)	———
TAPE	M. EQ	SPEC.	
———	Frequency Counter	Output Freq.= 4.433619MHz±50Hz	

1. Connect TP30002 to GND.

2-5.Edit OSD dot Clock Frequency Adj.

TP	ADJ	MODE	Input
TP30013 (TP30002)	VC30003	Stop (E-E)	———
TAPE	M. EQ	SPEC.	
———	Frequency Counter	Output Frequency= 6.850MHz±50KHz	

1. Connect TP30002 to GND.

2-6.Phase Difference of Color CTL Burst Gate Pulse Adj.

TP	ADJ	MODE	Input
TP30011 TP30012	VR30004	Stop (E-E)	Colour Bar Signal
TAPE	M. EQ	SPEC.	
———	Oscilloscope	Phase Difference T=9.0±0.25µsec.	

1. Connect TP30002 to GND.

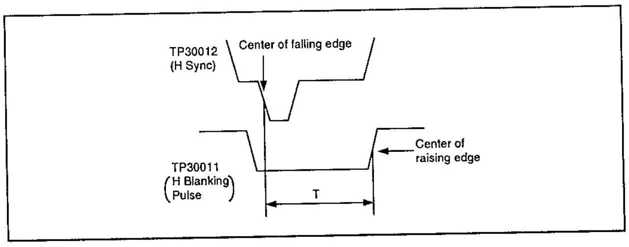

TP30012
(H Sync)
Center of falling edge
Center of raising edge
TP30011
(H Blanking Pulse)
T

Fig. E-12

2-7.E-E Y Level Adj.

TP	ADJ	MODE	Input
TP3002 (I/O Pack)	VR30002 (Analog Y/C Pack)	Stop (E-E)	Colour Bar Signal
TAPE	M. EQ	SPEC.	
———	Oscilloscope	Y Level= 2.0±0.1Vp-p	

1. Terminate the VIDEO OUT at 75Ω.

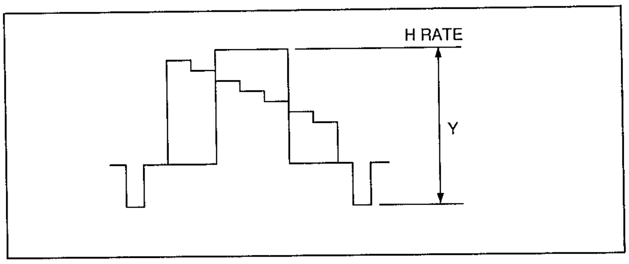


Fig. E-13

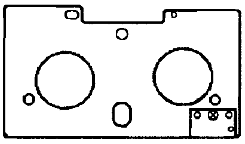
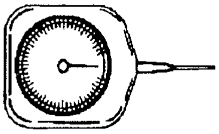
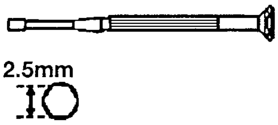
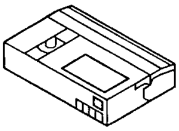
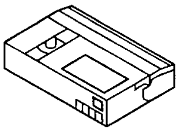
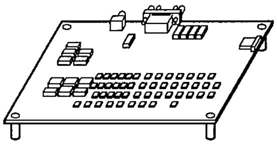
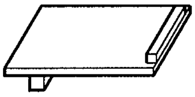
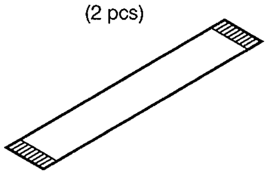
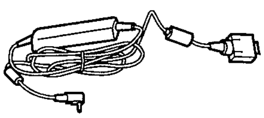
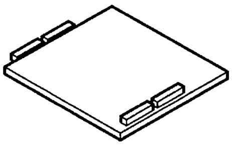
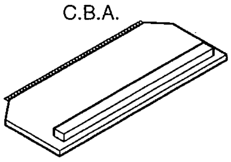
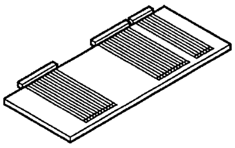
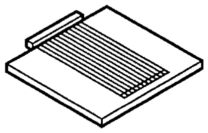
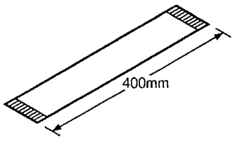
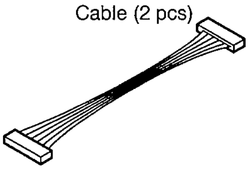
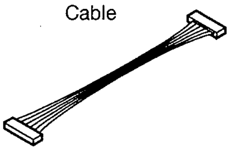
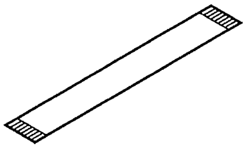
3. Audio Circuit

3-1. Level Meter Adj.

TP	ADJ	MODE	Input
Level Meter on the Front Panel	VR4004	Stop (E-E)	1 kHz, -6dB Audio Signal
TAPE	M. EQ	SPEC.	
———	———	0 [dB] Indicator on the Audio Level Meter just lights up.	

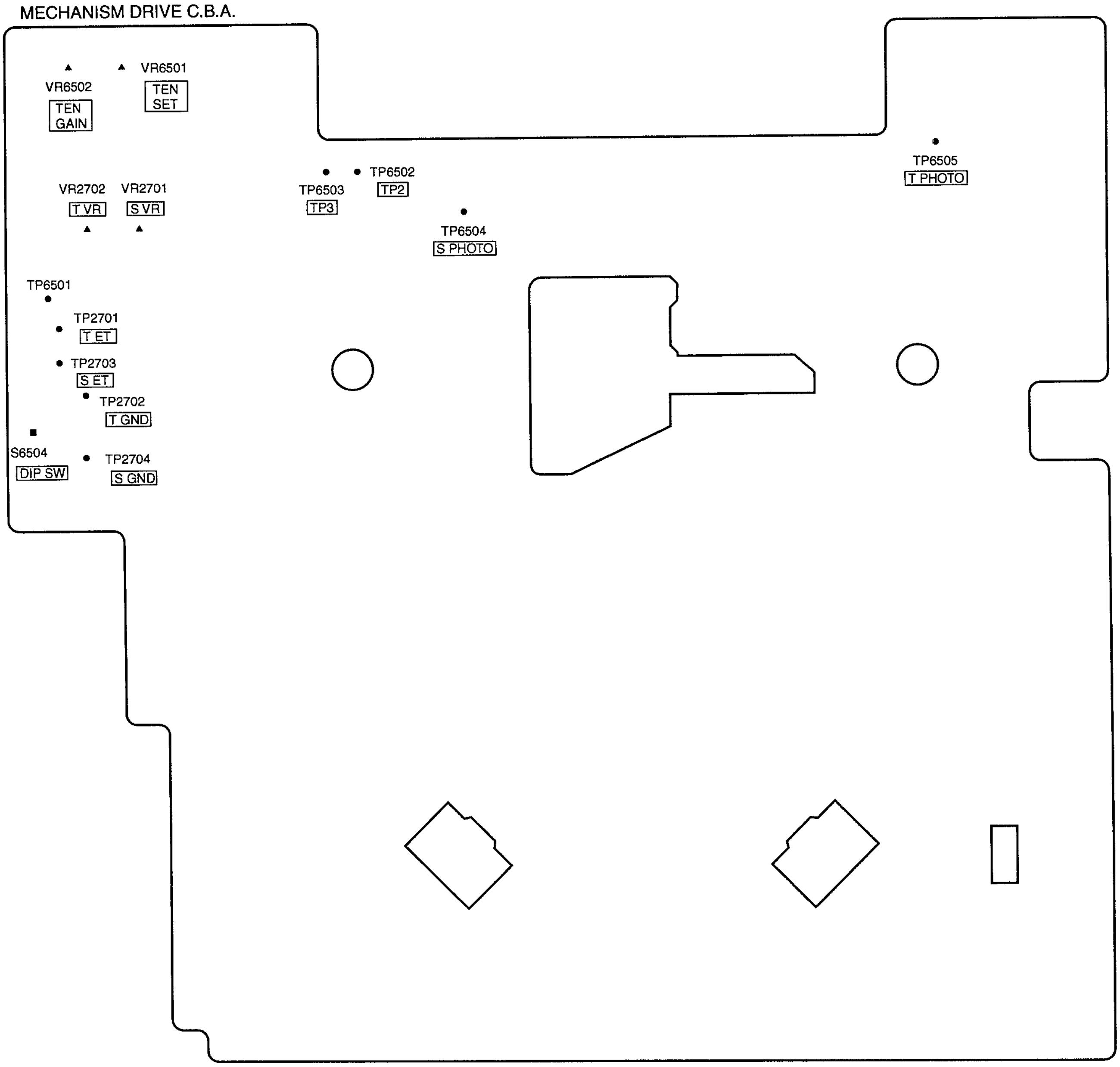
1. Set the Audio Rec Level Volume to center (click position : 5)
2. Set the output level of the Signal Generator to 1 kHz / -6dB and supply it to both Audio Input Line 1 terminals (L) and (R).
3. Adjust VR4004 until the OdB of the Level Meter on the FIP just lights up.

6. Servicing Fixtures & Tools

MECHANICAL/ELECTRICAL ADJUSTMENT			
VFK1348A: Mech. Plate 	**VFK1450:** T4 Post Height Fixture 	**VFK1155:** (REV, White) **VFK1156:** (PLAY, Black) **VFK1208:** (NEUTRAL, Black with hole) 	**VFK1188:** Dial Tension Gauge (30g) 
VFK1151: Box Driver (2.5mm) 	**VFK1426:** 6 % Sensor Cassette **VFK1217:** 49 % Sensor Cassette 	**VFK1147Y:** Y (50) Tape **VFK1147C:** C (40) Tape 	**VFK1469** Cap. Tilt Adj. Plate
TATSUJIN (ELECTRICAL ADJUSTMENT)			
VFK1409: Measuring Board 	**VFK1410:** EVR Connection Board 	**VFK1317:** 30 Pin Flat Cable (2 pcs) 	**VFK1395:** 232C (M3) I/F Cable 
EXTENSION CABLE			
VFK1405: AUDIO Connection C.B.A. 	**VFK1406:** DIGITAL Connection C.B.A. 	**VFK1407P:** Y/C Connection C.B.A. 	**VFK1408:** MOTOR Connection C.B.A. 
VFK1445: 26 Pin Flat Cable **VFK1446:** 32 Pin Flat Cable 	**VFK1436:** 14 Pin Extention Cable (2 pcs) 	**VFK1448:** 12 Pin Extention Cable 	**VFK0849:** 20 Pin Flat Cable 

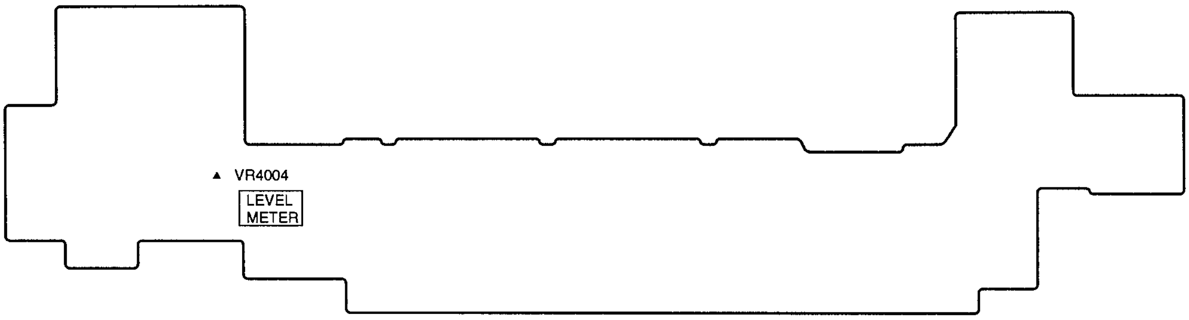
LOCATION OF TEST POINTS & CONTROLS

MECHANISM DRIVE C.B.A.


VR6501
TEN SET
VR6502
TEN GAIN
VR2702
T VR
VR2701
S VR
TP6503
TP3
TP6502
TP2
TP6504
S PHOTO
TP6505
T PHOTO
TP6501
TP2701
T ET
TP2703
S ET
TP2702
T GND
S6504
DIP SW
TP2704
S GND

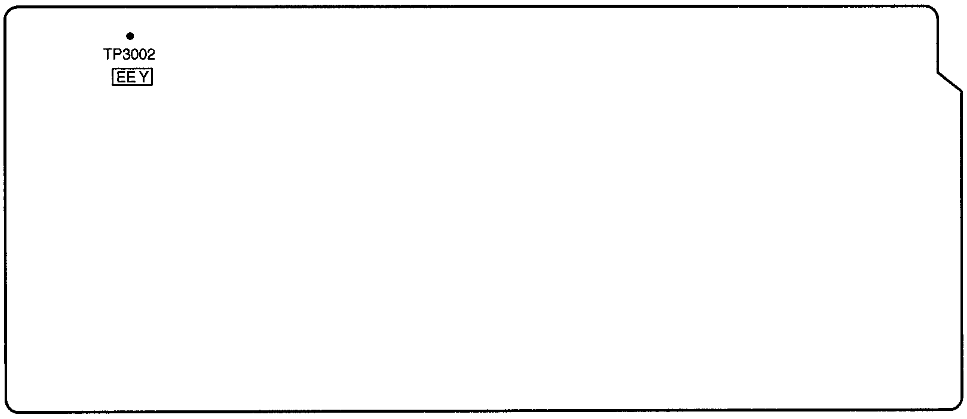
(COMPONENT SIDE)

TIMER C.B.A.


VR4004
LEVEL METER

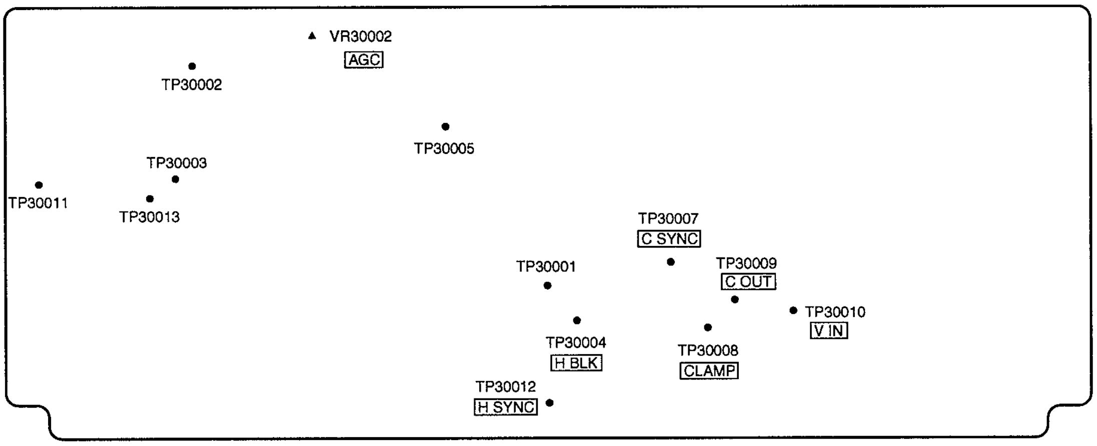
(FOIL SIDE)

INPUT / OUTPUT C.B.A.

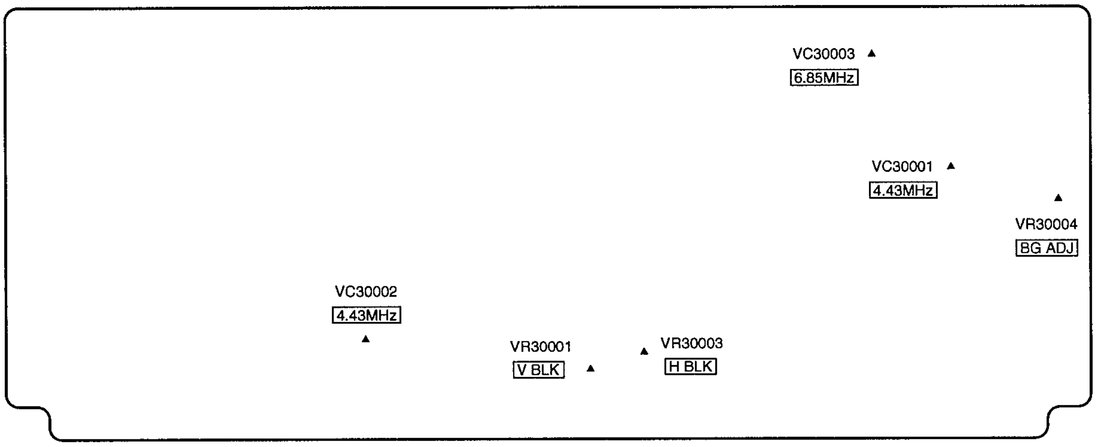


(FOIL SIDE)

ANALOG C.B.A.


VR30002
AGC
TP30002
TP30005
TP30003
TP30011
TP30013
TP30007
C SYNC
TP30009
C OUT
TP30001
TP30010
V IN
TP30004
H BLK
TP30008
CLAMP
TP30012
H SYNC

(COMPONENT SIDE)


VC30003
6.85MHz
VC30001
4.43MHz
VR30004
BG ADJ
VC30002
4.43MHz
VR30001
V BLK
VR30003
H BLK

(FOIL SIDE)

SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

3-1. ABBREVIATIONS

INITIAL/LOGO		ABBREVIATIONS
A	A GND	Analogue GND
	A. COMP	Audio Component Signal
	A. D.P [L]	Audio Dubbing Pause Ⓛ
	A. DEF [S]	Audio Defeat
	A. DUB P [L]	Audio Dubbing Pause Ⓛ
	A. ERASE	Audio Erase
	A. HASW	Audio Head Amp Switching Pulse
	A. HSW	Audio Switching Pulse
	A. IN [L]	Audio Input (L)
	A. IN [R]	Audio Input (R)
	A. MUT [H]	Audio Mute Ⓗ
	A. MUTE [H]	Audio Mute Ⓗ
	A. OUT [L]	Audio Output (L)
	A. OUT [R]	Audio Output (R)
	A. RF OUT	Audio RF Signal Output
	A. TR	Auto Tracking
	A0-8, 0-17	Memory Address
	A3V2	AD Converter Reference Voltage
	AB0-4	Address Bus
	AB0-4, AB12-15	Address Bus Line 0-4, 12-15
	ABSF	Focus Encoder Input
	AC. O/EE. H	AC Online/EE Ⓗ
	ACI	Analogue Channel Cording IC
	AD	AD Converter
	AD	Auto Date, Analogue Digital Converter
	AD CLK	AD Clock
	AD REC	Audio Delayed REC
	AD0-6	Address
	AD0-6, ADR0-6	Address Data Line
	ADCLK	Analogue Digital Converter Clock
	ADCNT	Analogue Digital Control
	ADCS	Analogue Digital Chip Select
	A-DET	Audio Detect
	ADREC	Audio Delaied Rec
	ADUB	Audio Dubbing
	AE	Auto Expose
	AECNT	Auto Expose Control
	AEE(H)	Audio E-E (H)
	AEH	Audio Erase Head
	AEIRQ	Auto Expose Interrupt Request
	AF DIS CS	AF DIS Chip Select
	AFC S C	AFC S Curve
	AFC [S]	AFC S Curve
	AFC. DEF	AFC Defeat
	A-FADE(L)	Audio Fade (L)
	AF-AMP	AF HALL Bias
	AFCS	Auto Focus Chip Select
	AFRP	Audio PLL Voltage Control
	AGC	Automatic Gain Control
	AGCCNT	Automatic Gain Control Control
	AGND	Analogue Ground/Audio Ground
	AGS	Anti Ground Shooting
	AH(P) / (R)	Audio Head (Play) / (Record)
	AHASW	Audio Head Amp Switch Pulse
	AHSW	Audio Head Switch Pulse
	AI, AO	Buffer Input, Output
	AIBCK	Bit Clock (to A/D Converter)
	AIDAT	Serial Data (to A/D Converter)
	AILRCK	L/R Clock (to A/D Converter)
	AIMCK	Master Clock (to A/D Converter)
	ALC CNT	Auto Level Control Control
	ALC MAIN	Auto Level Control Drive
	ALE	Address Latch Enable
	A-LOCK	Full Auto Switch
	ANLPTH	Analogue Loop Through High
	AORP	Audio Overlap Pulse
	APCNT	Aperture Control
	APS	Auto Power Save
	ART. V	Artificial Vertical Sync Signal
	ART. V. MM	Artificial Vertical Sync Signal Mono Multi
	ART. V/H/N	Artificial Vertical Sync Signal Ⓗ/Normal
	AT. V/H/N	Artificial Vertical Sync Signal
	ATSW/TEST/NOR/SE	Test/Normal/Service
	AT CNT	Automatic Tracking Gain Adjust
	ATF	Automatic Track Finding
	ATFCLK	41.85MHz Clock
	ATFG	Auto Track Gain
	ATL	Auto Lock Select
	ATN	Absolute Track Number
	ATR OFF(H)	Auto Tracking Off (H)
	ATV	Advanced TV
	AUDIO SELECT [H]	Audio Select Ⓗ
	AVDD	Analogue VDD
	AVSS	Analogue Ground
	AWTB	Auto White Balance B-Y
	AWTR	Auto White Balance R-Y
B	B MODE. H	B Mode Ⓗ
	B.G.P	Burst Gate Pulse
	BACK	Back-up
	BACK UP	Microcomputer Back-up
	BACK VDD	Back-up Power
	BATT	Battery
	BATT ALARM	Battery Alarm
	BATT REF	Reference Voltage for Battery
	BCB	B Carrier Balance
	BCBM(B-Y)	B-Y Carrier Balance
	BCBM(R-Y)	R-Y Carrier Balance
	BD0-7	REC/Play In/Out Buss
	BDCK	Standard Bus Data Clock (9MHz)
	BDEN	Standard Bus Data Enable
	BEND	Data Block End Request
	BF	Burst Flag Pulse
	BFA	Burst Flag Pulse for Encorder
	BFO/BFI	Burst Flug Input/Output
	BI, BO	Buffer Input, Output
	BI/MI [L]	Bilingual/Mix Ⓛ
	BIL	Bilingual
	BIL [L]	Bilingual Ⓛ
	BL	Back Light
	BL ON	Back Light ON (L)
	BL4V	Back Light 4V
	BLC 0, 1	Back Light Y Control Out, In
	BLDI/O	Back Light Drive Input/Output
	BLK	Blanking Pulse
	BLKA	Blanking for Encorder

INITIAL/LOGO		ABBREVIATIONS
	BLKA	Blanking Pulse for Encorder
	BLKI/O	Blanking Pulse In/Out
	BLKZ	Blanking Pulse for Zoom Encorder
	BM	Balance Modulator
	BQUIET	Bus Out Control Signal
	BS CLOCK	BS Clock
	BS DATA	BS Data
	BS LCH IN	BS L Channel Input
	BS MIX [H]	BS Mix Ⓗ
	BS MONI [H]	BS Monitor Ⓗ
	BS MONI [H]	BS Monitor Ⓗ
	BS RCH IN	BS R Channel Input
	BUF IN/OUT	Buffer In/Out
	B-Y KB	B-Y Carrier Balance
	B-YO	B-Y Signal Out
C	C A In/Out	Pre-Aperture In/Out
	CAPSTP	Capstan Stop Flag
	C CNT	Colour Control
	C SYNC	Composite Sync Signal
	C/N	Carrier/Noise
	C0-7, C00-07	Chrominance Signal 0-7
	CAGAIN	Aperture Gain Control
	CAM TL	Capstan Trque Limit
	CAP EC	Capstan Trque Control
	CAP M GND	Capstan Motor GND
	CAP P(H)	Capstan Power On (H)
	CAP R/F/S	Capstan Reverse (H)/Stop (M)/Forward (L)
	CAP SW	Capstan Power Control Switch
	CAP. ET	Capstan Torque Control
	CAP. FG1	Capstan FG1 Pulse
	CAP. FG2	Capstan FG2 Pulse
	CAPSTP H	Capstan Stop Flag (Stop High)
	CAPVM	Capstan Motor Current
	CAPVS	Capstan Motor Power Control Switch
	CAS. SW	Cassette SW
	CAS	Compresion, Audio Process, Shuffling/Deshuffling
	CAS	Memory Address Strobe (Active Low)
	CASDOWN, DWN	Cassette Down (L)
	CB, CR	Chroma B, Chroma R
	CBLK	Composite Blanking Pulse
	CC	Channel Cording
	CCA	Curent Drive Control
	CCA	Current Control Amp
	CCD	Charge Coupled Devise
	CCW	Counterclockwise
	CD SP0-7	Digital Chroma
	CDS	Correlate Double Sampling Signal
	CDS1, 2	Sampling Pulse for CCD Output Signal
	CE	Chip Enable
	CE	Control Pulse Erase
	CEC	Capstan Error Code
	C-ERA(H)	Control Erase (H)
	CFEM	Chrominance Memory Signal
	CFM	Chrominance Field Memory
	CFM1-4	Chroma Field Memory Signal
	CG CLK	Character Generator Clock
	CG CLK DATA	Clock Generator Data
	CG DATA	Character Generator Data
	CGC	Chrominance Gain Control
	CGCS	Character Generator Chip Select
	CGO	Character Generator Serial Data
	CH	Charge
	CH1	Channel 1 (Odd Field)
	CHR	Character
	CHR BACK	Character Back-up
	CHR MIX	Character Mix
	CI, CO	Buffer In/Out
	CI,CO	Buffer Input & Output
	CIF	Control Signal Forward Input
	CIF, CIR	Positive Control Pulse, Negative Control Pulse
	CIR	Control Signal Reverse Input
	CK	Clock
	CKL	Ratch Lock
	CKS	Shift Lock
	CL/CLK	Clock
	CLASS	Classeffication Signal for Compress (DCT/VLC)
	CLASS 0.1	Class Control Signal Durring DCT/VLC
	CLK135	13.5MHz System Clock
	CLK18	18MHz System Clock
	CLK2	Clock 2 (824XFH: 12.875MHz)
	CLK246	24.576MHz Clock
	CLK27	27MHz System Clock
	CLK450	450KHz Clock
	CLKDCLK	Digital Clock
	CLK-PH	Clock Phase Control
	CLK-REF	Reference Clock
	CLP-RST-H	Clamp Reset High Signal
	CLY FG	Cylinder FG Signal
	CMEMO0-3	Chroma Memory Output Signal 0-3
	CMIX	Character Mix
	CMO	Chrominance Memory Output
	COL/B/W/NOR	Colour/Black & White/Normal
	COLOR [H]	Colour Ⓗ
	COMPC	Position Detection Pulse
	COM RDY	Serial Enable Signal
	CNCLK	Clock
	CNR	Chrominance Noise Reduction
	CNT, CONT	Control
	CO	Control Out
	CO0-7	Chrominance Output 0 to 7 (Digital)
	COM	Common
	COM RDY	Serial Transmission Enable
	COMB	Comb Filter
	COS EQ	Cosin Equalizer
	CP	Clamp Pulse
	CP ON(H)	Camera Power On(H)
	CP2, 20	Clamp Pulse
	CP2A, CP2O	Encoder Clamp Pulse
	CPN	Component Signal
	CPOB	Clamp Pulse for Optical Blanking
	CPS	Composite Signal
	CPV	Gate Scan Clock
	CR OUT	Pre Apature Out
	CR POW SW	Camera Remote Power On Switch
	CRA	Aperture Gain Control
	CRA	Pre Apature Gain Control
	CS	Chip Select
	CS 0-7	Chrominance Signal Out 0-7
	CSEL	Clock Phase Select
	CSI 0-7	Chrominance Signal In 0-7
	CTSW	Crosstalk Switch
	CURR	Current
	CURRENT LIM	Current Limmiter
	CW	Clockwise
	CYL ET	Cylinder Motor Trque Control

INITIAL/LOGO		ABBREVIATIONS
	CYL PG	Cylinder Motor PG
	CYL VM	Cylinder Motor Current or Power
D	D CLK	Digital Clock
	D MODE	Digital Mode Switch Signal
	D. FM REC [H]	Delaied FM Recording Ⓗ
	D. FM REC [L]	Delaied FM Recording Ⓛ
	DA UV SEL	D/A Convertor U/V Select
	DAC	Digital Analogue Converter
	DAG	Digital Analogue Ground
	DB0-7	Data 0-7
	DB0-7	Microprocessor Data
	DCC	DC Clamp Control
	DCCNT	DC Control
	DCI	Digital Channel Cording IC
	DCLR	Digital Clear
	DCP	Digital Clamp Pulse
	DCS-CLK, DA	CAS & DV I/F Serial Clock
	DC-STP1	DCS Serial Start
	DC-STP2	DCS Serial Stop
	DCT	Discrete Cosine Transform (Compression)
	DCX7	Serial Data
	DEDP 0-3	Playback Data
	DEDR 0-3	Rec Data
	DEMO	Demodulation
	DEMP	A/D Convertor Empahsis Control
	DEMP	De-Emphasis
	DFD 0-7	Encode Data In/Out Between Shaffling Memory
	DFD0-7	Encode Input/Output Signal for Shuffling Memory
	DIBDCK	Bit Clock
	DICLK	Digital Clock
	DIDAT	Serial Data
	DIDAT	Serial Data Durring Digital Audio In
	DIF	Digital Interface
	DILRCK	L/R Clock
	DILRCK	Serial Clock Durring Digital Audio In
	DIMCK	Master Clock
	DIMCK	Mater Clock Durring Digital Audio In
	DIO 1-8	Data In/Out
	DIOS	Data In/Out Select Control Signal
	DIOS	Select Signal for Digital In/Out
	DIS	Digital Image Stabilizer
	DIS R/B	Digital Image Stabilizer Read (H)/Busy (L)
	DIS R/B	DIS IC Rady/Busy
	DIS/KAND	Digital Image Stabilizer/Sensitivity
	DISCS	Dis Chip Select
	DISP	Display
	DL	Delay Line
	DOBCK	Audio A/D Convertor Bit Clock
	DOCTL	Data Output Control Signal
	DODAT	Serial Data (to D/A Converter)
	DOLRCK	Audio A/D Converter LR Clock
	DOLRCK	L/R Clock (to D/A Converter)
	DOMCK	Audio A/D Converter Master Clock
	DOMCK	Master Clock (to D/A Converter)
	DQ 1-16	Memory Data
	DRAM CAS	D-RAM Colum Address Strobe
	DRAM OE	D-RAM Out Enable
	DRAM RAS	D-RAM Read Address Strobe
	DREC	AV Delayed REC Start Pulse
	DRK	Dark (LPF Switch for Auto Focus)
	DS1, 2	Double Sampling Pulse
	DSF 0-7	Data In/Out for Shaffling Memory

INITIAL/LOGO		ABBREVIATIONS
	DSF 0-7	Input/Output Data to Shuffling Memory (18MHz)
	DSP	Digital Signal Processor
	DSP R/B	DSP IC Rady/Busy
	DSP-48K-H	DSP IC Clock Select
	DSTB	Data Stobe Signal
	DSV	Digital Sum Variation
	DV	Digital Video
	DVB	Digital Video Broadcast
	DVC	Digital Video Cassette
	DVDD	Digital VDD
	DVIO	Digital Video Input Output
	DVSS	Digital GND
E	E2 CS or E2P CS	EEPROM Chip Select
	E2 R/B	EEPROM Rady/Busy
	E2P	EEPROM
	EARP	Earphone
	EC	Torque Control
	ECC	Error Correction Cording
	ECM	Electric Condencer Mic
	ECR	Reference Voltage for Capstan Torque
	EDA	Error Correction, DCI, ATF Servo
	EDT TRIG [L]	Edit Trigger Ⓛ
	EDIT [H]	Edit Ⓗ
	EE [H]	EE Ⓗ
	EE CS	EEPROM Chip Select
	EE R/B	EEPROM Read (H)/Busy (L)
	EEPROM	Electric Erasable Programable Read Only Memory
	EIS	Electric Image Stabilizer (DIS)
	EMP	A/D Convertor Emphasis Control
	ENAB	Enable
	ENV	Enverope
	EOB	End of Block
	EP [H]	LP Ⓗ
	EP/LP [H]	LP Ⓗ
	EP/LP/SP	LP/SP
	EP/SS [H]	LP/Slow/Still/Stop Ⓗ
	EPROMCS	EPROM Chip Select
	EQ	Equalizer
	EXT S DATA	Serial Data for Edit
	EXT SCK	Serial Clock for Edit
F	FACT MODE	Factry Mode (not used in the service)
	FB	Feed Back
	FC	Saw Tooth Signal In
	FCK	Clock
	FCO	Saw Tooth Signal Generator
	FEND	Frame End Pulse
	FF/REW [L]	First Forward/Rewind Ⓛ
	FG1 IN	FG1 Pulse Input
	FG2 IN	FG2 Pulse Input
	FH2B	FH/2 (15.625KHz / 2=7.8125KHz)
	FIX OSD	Auto Tracking Off (H)
	FLICK	Flicker Output
	FLY ERASE [H]	Flying Erase Head On Ⓗ
	FM	Field Memory
	FM MUT [H]	FM Audio Mute Ⓗ
	FM MUTE [H]	FM Audio Mute Ⓗ
	FM0-7	Field Memory 0-7
	FMCO0-3	Field Memory Chrominance Out 0-4
	FMDIR	Focus Motor Direction
	FMOEM	Field Memory Enable
	FMOEO	Field Memory Enable

INITIAL/LOGO		ABBREVIATIONS
	FMT1-4	Focus Motor Terminal 1-4
	FMY00-07	Field Memory Luminance Out 0-7
	FMYI0-07	Field Memory Luminance In 0-7
	FNO	F Value
	FPS	Frame Refference Signal
	FR	Capstan Reverse High
	FRP	Frame Refference Pulse
	FRPSO	Frame Start Pulse
	FUL. E [H]	Full Erase Head On Ⓗ
	FULL. E [H]	Full Erase Head On Ⓗ
G	G1, G2, G3	Gap 1, 2 and 3
	GCA	Gain Control AMP
	GCNT	Gain Control
	G-CNT	AGC Adjustment
	GCTRL	Gain Control
	GENE	Generator
	GF	FG AMP Terminal
	GSW	Ground for Switching Power
H	H/M/N	Hi-Fi / Mix / Normal
	H/N	Hi-Fi / Normal
	H. SYNC	Horizontal Sync
	HAP	Horizontal Aperture
	HASW	Head AMP Switching Pulse
	HB	Hall Bias
	HBR SET	High Brightness Set
	HBRST	High Brightness Set
	HCLR	High Clear
	HCP	Shift Clock for Horizontal Drive
	HD	Horizontal Drive Pulse
	HDTV	High Definition TV
	HEX	Hexadecimal
	HG	Hall Gain
	HID	Head Switching Pulse
	HLT	High Bright Signal
	HALL IN(+), (–)	Input Signal from Hall IC
	HP	Headphone
	HPF	High Pass Filter
	HSE	Modulated Data Output
	HSP	Timing Pulse for Shaffling Memory
	HSS	Horizontal Sync Signal
	HSW	Head Switching Pulse
I	I/F	Interface
	I-2 C	Inter Integrated Circuit
	ID(H)	Wide Television (H)
	IMP	Inter Microprocessor Protocol
	IN SELA1	Input Select A1 Position
	IN SELA2	Input Select A2 Position
	IN SELA3	Input Select A3 Position
	INS L/R [L]	Insert Lch/Rch Ⓛ
	INS. [H]	Insert Ⓗ
	INTER	Interval Recording
	INV	Inverter
	IOU	R-Y Analogue Signal Output
	IOV	B-Y Analogue Signal Output
	IOY	Y Analogue Signal Output
	IR	Infrared Rays
	IRDET	Imfrared Ray Detection
	IREF	Current Adjustment Terminal
	IRIS/SH	Iris / Shutter Control
	IRQ	Interrupt Request

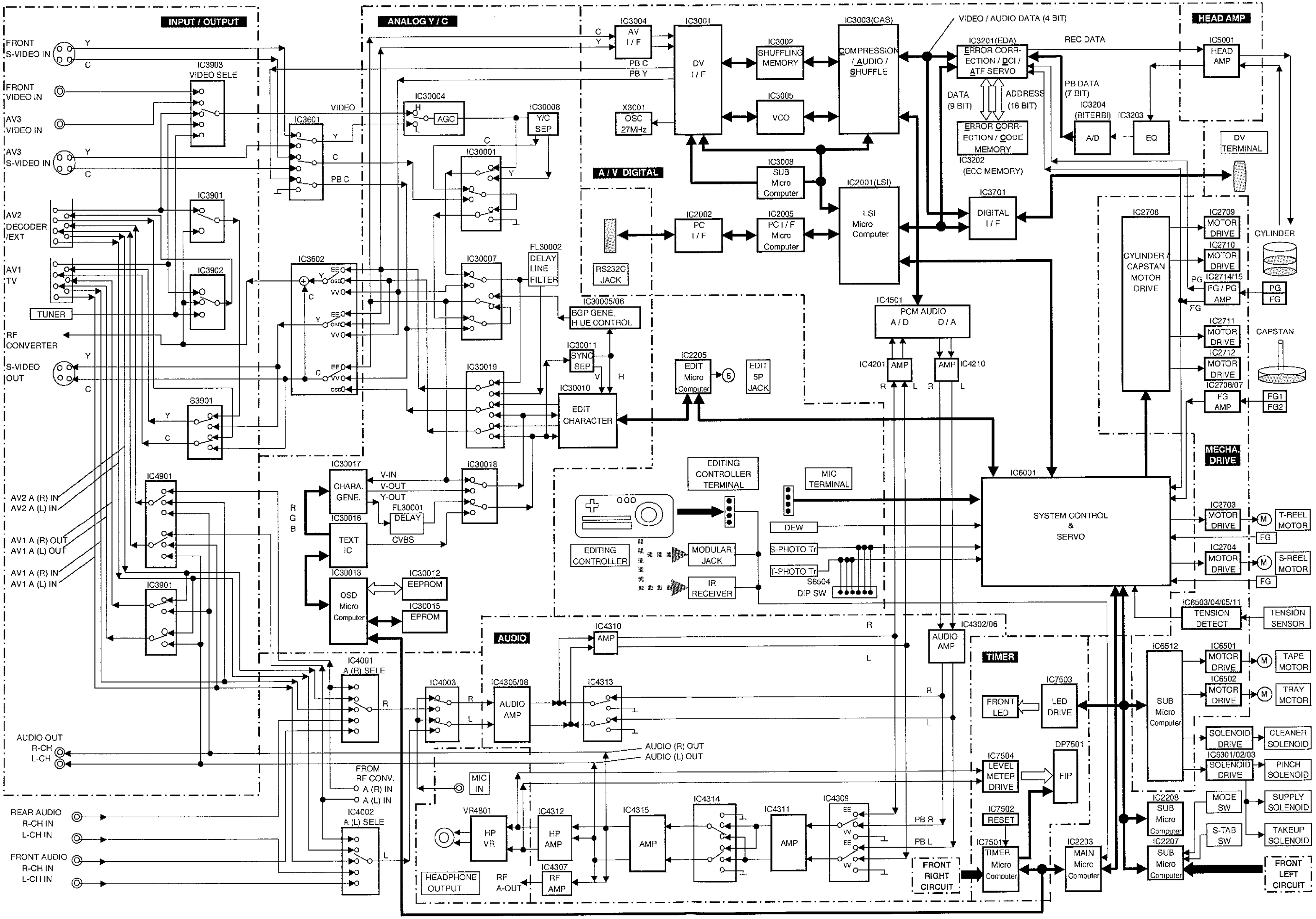
INITIAL/LOGO		ABBREVIATIONS
	ITI	Insert & Track Information
J	JPEG	Joint Photographic Image Cording Experts Group
K	KANDO	Digital Gain Up
	KB	Carrier Balance
	KEY IN	Key Scan
	KND	Digital Gain Up
	KNEE	Luminance Compensate
L	LD	Load Pulse
	LEDCNT	LED Control
	LI-BATT	Lithium Battery
	LOAD	Loading
	LOAD F, R	Loading Direction (F: Forward / R: Reverse)
	LPF	Low Pass Filter
	LRMONO	Monoral Audio (L + R)
	LSB	Least Significant Bit
	LVL	LPF Switch for Auto Focus
M	M GND	Motor GND
	M1-3	Motor Coil Terminal 1 to 3
	MA0-5	Microprocessor Address Data 0-5
	Mbps	Megahertz Bit Per Second
	MD	Modulation
	MD0-7	Microprocessor Data 0-7
	MDT0-7	Microprocessor Data 0-7
	ME (TAPE)	Metal Evaporated (Tape)
	MES [H]	Mesecam Ⓗ
	MESE [H]	Mesecam Ⓗ
	MESE [L]	Mesecam Ⓛ
	METER 5V	Level Meter 5V
	METER [L]	Level Meter (L)
	METER [R]	Level Meter (R)
	METER. L/AVS	Level Meter (L)
	METER. R/AVS	Level Meter (R)
	MHSYNC	Monitor Horizontal Sync Signal
	MI/BI [L]	MIX Ⓗ/Biligual
	MIC	Memory In Cassette
	MIG	Meta In Gap
	MIX N.R.D.	Non Rec Data Mix
	MOD	Modulation
	MODE SEL	Audio Mode Select
	MODE SW	Audio Mode SW
	MONO [H]	Monaural Ⓗ
	MOUT	Mic Out
	MP (TAPE)	Metal Particle (Tape)
	MSB	Most Signal Bit
N	N/P	NTSC/PAL
	NB1-3	Base for NPN Transistor
	NC	No Connection
	NC1-3	Corrector of NPN Transistor
	NCLR	Power On Reset
	NCP1	Clamp Pulse
	NDE	Non Liner De-Emphasis
	NE	Emitor of NPN Transistor
	NLE	Non Liner Emphasis
	NR	Noise Reduction
	NRD	Non Rec Data
	NRD BLK	Non Rec Data Blanking
	NRD CLK	No Rec Data Clock
	NRE	Read Enable Input (Low Active)

INITIAL/LOGO		ABBREVIATIONS
	NWE	Write Enable (Low Active)
O	OB	Optical Black
	OBCNT	Optical Black Control
	OBREF	Reference Voltage for Optical Black Control
	OCH	Control AGC Circuit
	OE	Output Enable
	OFH	Horizontal Counted Down Clock Signal (Reference)
	OFS	Offset
	OP	Operation AMP Output
	OSD	ON Screen Display
	OVL	Overlap Pulse
P	P. FAIL	Power Failure Detect
	P. OFF [H]	Power Off Ⓗ
	P. OFF [L]	Power Off Ⓛ
	P SW	Power Switch
	PB1-3	PNP Base 1-3
	PBCTL	Play Back Control
	PBCTL	Pre-Branking Control
	PBH	Head Amp Switch
	PBLK	Pre-Blanking (Pulse)
	PC1-3	Corrector of PNP Transistor
	PCBM	Carrier Balance
	PCH	Phase Compensator (Hall AMP)
	PCI	Phase Compensator (Current)
	PCO	Phase Compensator Out
	PCS	Switching Power Control
	PCV	Phase Compensator (Voltage)
	PE	Emitter of PNP Transistor
	PED	Pedestal
	PEDECNT	Pedestal Control
	PENO	Alarm (L)
	PFP	Pilot Frame Position
	PGA, B	Power Ground A, B
	PGC	Pulse Generator Comparator
	PGI	Pulse Generator Input
	PGMM	Pulse Generator Monostable Multivibrator
	PGO	Output of Pulse Generator AMP
	PMODE	Select Signal for Normal / Wide Screen
	PON	Power On
	POR	Power On Reset
	POSCOM	Common Position
	PREAMP	Pre-AMP
	PREBLK	Pre-Blanking
	PT	Protect for V Voltage
	PWM	Pulse Width Modulation
	PWMB	Pulse Width Modulation Pulse
	PWRFAIL	Power Failure Detect
Q	Q2H	Source Output Select
R	R CTL P	Recorded Control Pulse (+)
	R CTL R	Recorded Control Pulse (–)
	R/B	Read/Busy
	R/L	Direction Control for Data Transmition
	R/S/F	Reverse Ⓗ/Stop Ⓜ/Forward Ⓛ
	RA	Recording AMP
	RA1	Rec AMP 1
	RAC AC	Rec Audio Current
	RAD	Read Address Data
	RAE	Read Address Enable
	RB	Read Busy
	R-B	R Bias
	RCB	R Carrier Balance
	RE	Read Enable
	RE(F), (S)	Rotary Erase Head Transformer
	REB	R Bias
	REC CC	Rec Current Control
	REC CCNT	Rec Current Control
	RECCTRL	Recording Control Pulse
	RECI	Rec Amp Switch
	RENCF	Lens Control (Forward)
	RENCR	Lens Control (Reverse)
	RERASE	Rotary Erase Head
	RF. CHROMA	RF Chrominance Signal
	RGBIV1-2	1V Inverted Signal 1-2
	RGO R/G OFF	Offset Voltage for AWT R
	RSF	Capstan Direction (Reverse / Stop / Forward)
	RST	Reset
	RSTB	R Strobe
	RSTPWD	Reset Power Down Input
	RSTR	Reset Read
	RSTW	Reset Write
	RT	Saw Tooth Terminal
	RVCO	Resister for Oscillation
	RW	Read Write
	RWAE	Read Write Enable
S	S IN	Serial Data Input
	S OUT	Serial Data Output
	S-PHOTO	Supply Photo Transistor
	S-RL. PLS	Supply Reel Pulse
	S. CLK	Serial Clock
	S. CLK/AV	Serial Clock/AV
	S. DATA	Serial Data
	S. TAB [L]	Safety Tab SW ON Ⓛ
	S/H	Sampling Hold
	S/PIN	SECAM/PAL/NTSC
	S/S	Start/Stop
	SBD	Serial Data
	SBI	Serial Data Input
	SBO	Serial Data Output
	SBT	Serial Clock
	SC IN	Serial Clock Input
	SC OUT	Serial Clock Output
	SCAN0-5	Key Scan 0-5
	SCK	Serial Clock
	SCK SELECT	Serial Clock Select
	SCR	Search
	SCR, S.C.R.	Still Cue Review
	SEG.	Segment
	SET	White Balance Set
	SH/IRIS	Shutter/Iris Control
	SHIFT	Capasitor for Phase Shift
	SI	Serial Data Input
	SIC	Shift In Clock Input
	SIF	Sound Intermediate Frequency
	SIOC	Serial In/Out Control
	SMCE	Shaffling Memory Chip Enable
	SMRS	Shaffling Memory Read Strobe
	SMWE	Shaffling Memory Write Enable
	SMWS	Shaffling Memory Read Strobe
	SNAP	Snap Shot
	SNS LED	Sensor LED
	SO	Serial Data Output

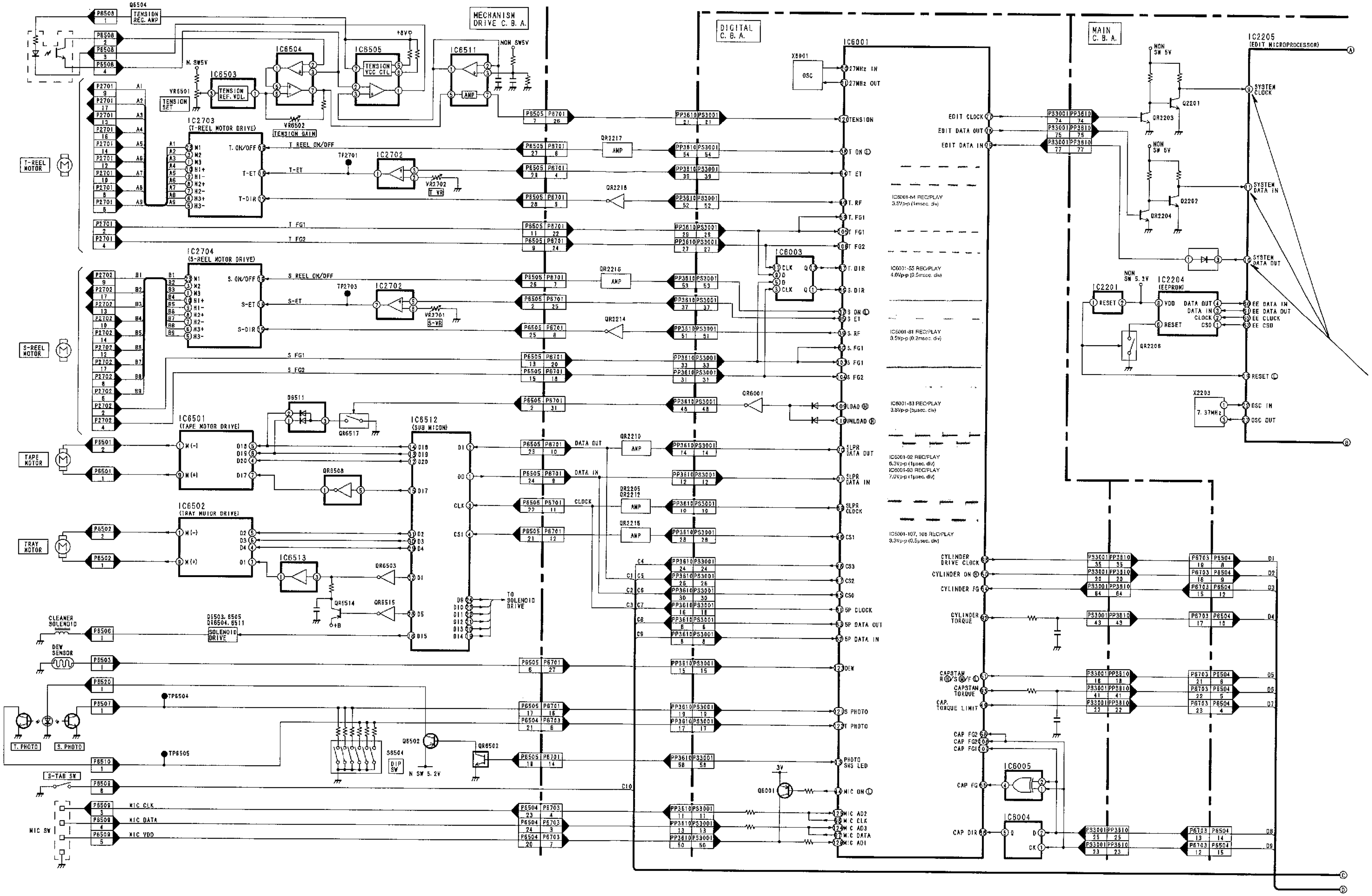
INITIAL/LOGO		ABBREVIATIONS
	SPA	ATF Smapling Pulse
	SPEN	8 Bit Shift Register Enable
	SPK	Speaker
	SPO	Reset for Switcing Power
	SPST	8 Bit Shift Register Strobe
	SREELP	Supply Reel Pulse
	SRT	Start
	SSA	Start Sync block Area
	SSS [L]	Slow/Still/Stop
	SSW	Select Signal for Low Pass Filter
	ST5V	Safety Tab 5V
	STAB	Safety Tab Switch
	STB	Stand by Signal
	STB	Strobe
	SWB	Switching Pre-Drive Pulse
	SYL EC	Cylinder Torque Control
	SYL FG	Cylinder FG
T	T-PHOTO	Take-Up Photo Transistor
	T-RL. PLS	Take-Up Reel Pulse
	T. BUSCLK	Timer Bus Clock
	T. BUSLSN	Timer Bus Listen
	T. BUSTLK	Timer Bus Talk
	TBC	Time Base Conntrol
	TFT	Thim Film Transistor
	TH	Thermostat for Battery
	TI	Test Mode Select
	TL	Torque Limit
	TM	Sub Code
	TMD	Sub Code Data
	TRE	Tracking Error Signal
	TREEL(P)	Take-up Reel (Pulse)
	TRFIX	Tracking Fix
	TRIWAVE	Tracking Wave
	TRP	Tracking Position
	TRP	Trap
	TSR	Head Switching Refference
	TST	Time Scale Transfer
	TU. AUDIO	Tuner Audio
	TU. GND	Tuner GND
	TU. V. IN	Tuner Video Signal Input
	TU. VIDEO	Tuner Video
U	U/V SEL	R-Y/B-Y Select Signal
	UNLOAD	Un-Loading
	UNRE	Microprocessor Read Enable
	UNWE	Microprocessor Write Enable
	UV	R-Y/B-Y
	UV SEL	R-Y/B-Y Select Signal
V	V. REF	Reference Voltage
	V. EE [H]	Video EE Ⓗ
	V. EE [L]	VIdeo EE Ⓛ
	VCO REF	Reference Oscillater
	V1-V4	V. CCD Drive Pulse
	VB	VH Filter Switching
	VCE	Power Terminal
	VCNTL	Video Control
	VCO	Voltage Control Oscillator
	VCP	Shift Clock Output for Vertical Drive
	VCTLD	Video Control
	VCTRL	Voltage Charge Control
	VD	Vertical Drive Pulse

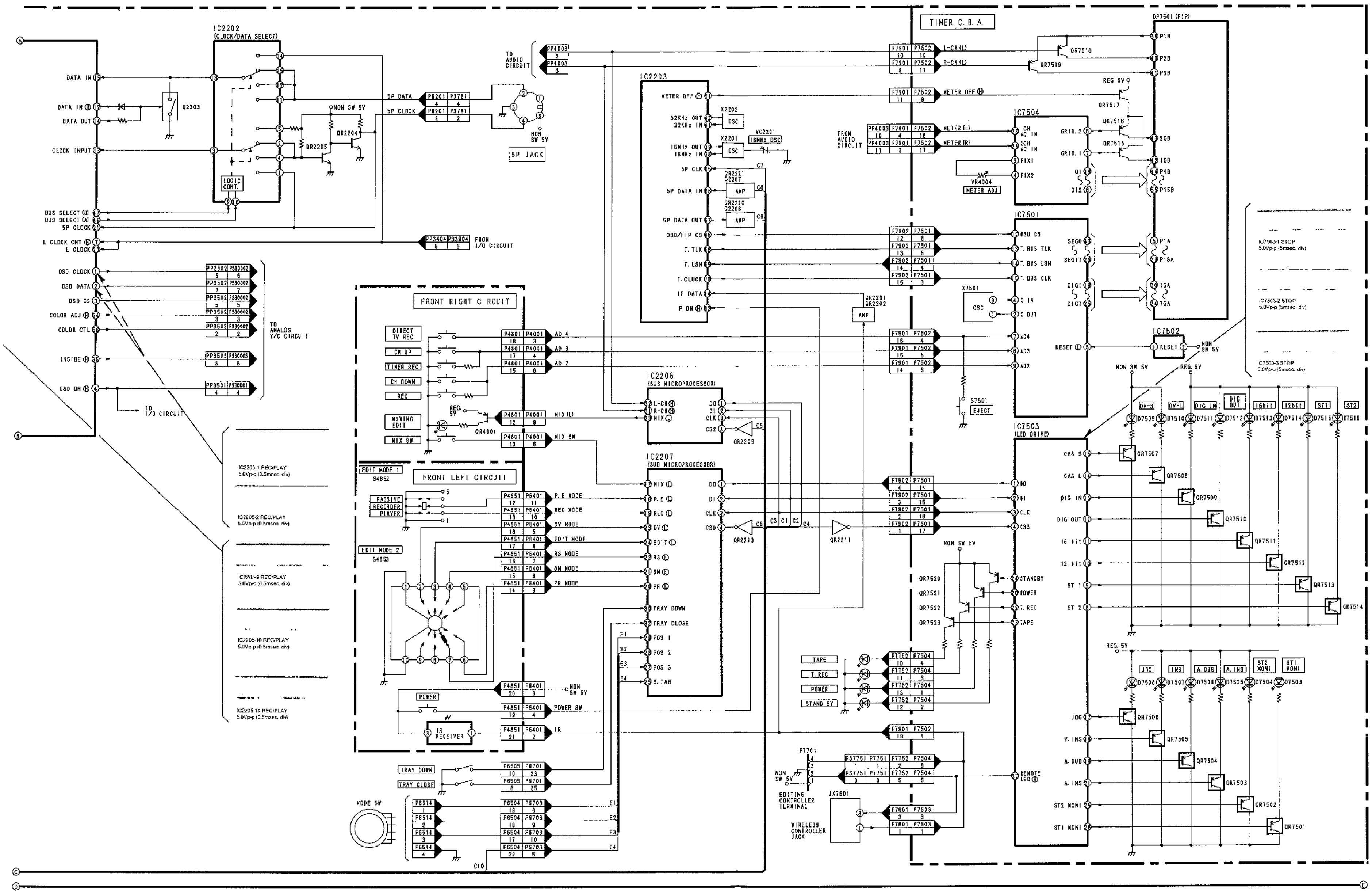
INITIAL/LOGO		ABBREVIATIONS
	VDDX	X Drive Power for Colour LCD
	VDDXY	XY Drive Power for Colour LCD
	VDDY	Y Drive Power for Colour LCD
	VDREC	Video Delayed Rec
	Vgg	Voltage for Gate IC
	Vgl	Gate off Voltage
	VID	Video Signal Out
	VIN	Video In
	VITC	Vertical Interval Time Code
	VITERBI	One of Signal Detection Method
	VL	Low Voltage
	VLC	Variable Length Cording
	VLOCKP	Artificial Sync Pulse
	VLP	Artificial Sync Pulse
	VM	Motor Voltage
	VMD	Velocity Mode Data
	VMD1-3	Electric Shutter Mode
	VMODE	NTSC/PAL Select Switch
	VMVH	VH Filter Switching
	VORP	Video Overlap
	VRB	Voltage Refference Bottom
	VRBS	Voltage Refference Bottom Output
	VREFH	Refference Voltage High Side
	VREFL	Refference Voltage Low Side
	VRI	Refference Voltage Input
	VRO	Refference Voltage Output
	VRT	Voltage Refference Top
	VRTS	Voltage Refference Top Output
	VS	Switching Comparator
	VSS	Vertical Sync Signal
W	W/N	Mode Select for Window Mode
	W/N	Wide / Normal
	WAD	Write Address Enable
	WAE	Write Address Enable
	WAERAE	Write Address Enable
	WARI	Interrupt
	WB	White Balance
	WE	Write Enable
	WEM	Memory Write Enable
	WSB	B AGC Control
	WSR	R AGC Control
	WTV	Wide TV
X	X IN	Oscillator Input
	X OUT	Oscillator Output
	XP	FG Logic Reset
Y	Y FM0-7	Y Field Memory 0-7
	YCE	Cylinder Error Code
	YGC	Y Gain Control
	YMO 0-7	Y Field Memory 0-7
	YNCST	Noize Canceller
	YNR	Luminance Noise Reduction
	YSDP 0-7	Digital Y Out 0-7

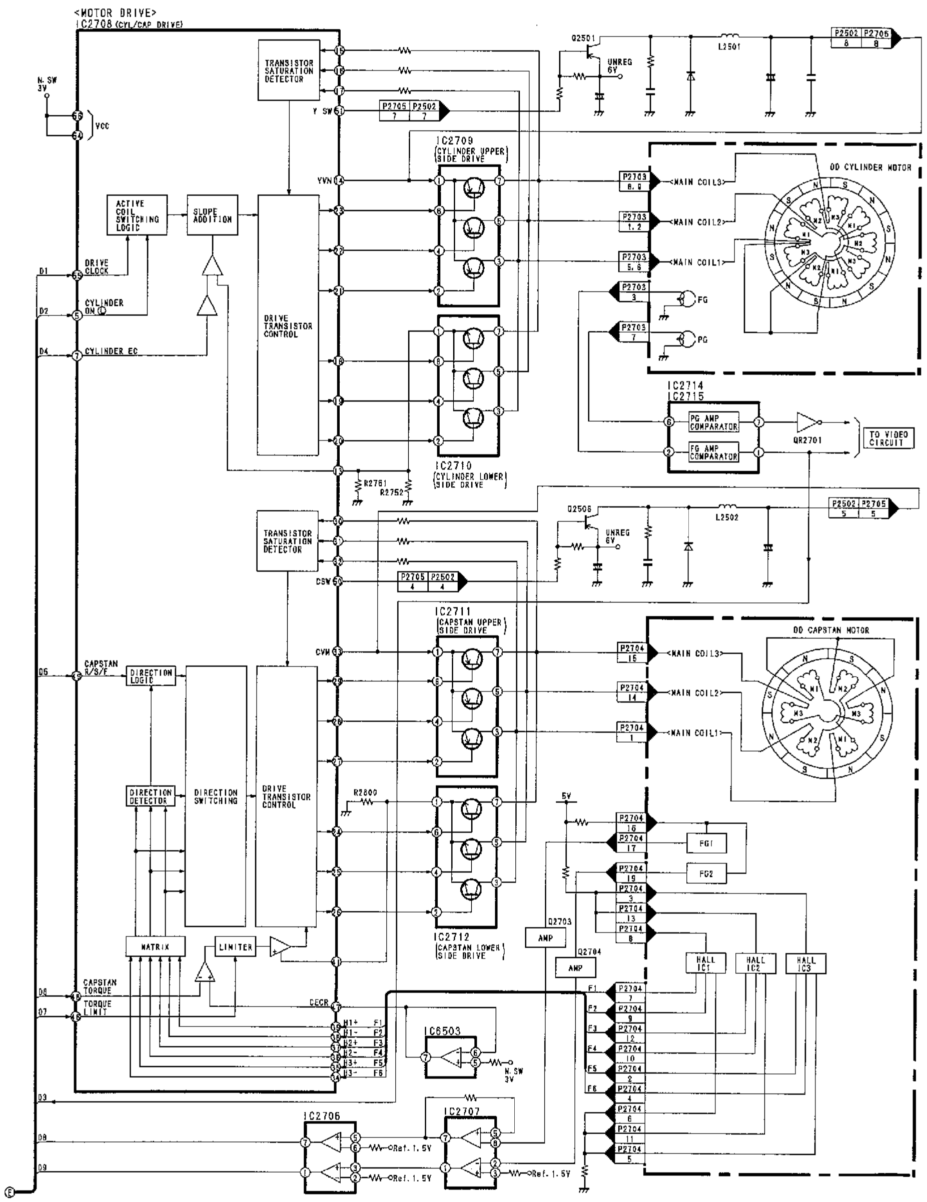
3-2. OVERALL BLOCK DIAGRAM


INPUT / OUTPUT
FRONT S-VIDEO IN
Y
C
FRONT VIDEO IN
AV3 VIDEO IN
AV3 S-VIDEO IN
AV2 DECODER /EXT
AV1 TV
TUNER
RF CONVERTER
S-VIDEO OUT
AV2 A (R) IN
AV2 A (L) IN
AV1 A (R) OUT
AV1 A (L) OUT
AV1 A (R) IN
AV1 A (L) IN
AUDIO OUT
R-CH
L-CH
REAR AUDIO
R-CH IN
L-CH IN
FRONT AUDIO
R-CH IN
L-CH IN
IC3903
VIDEO SELE
IC3901
IC3902
S3901
IC4901
IC3901
ANALOG Y / C
IC3601
VIDEO
PB C
IC30004
AGC
H
L
IC30008
Y/C SEP
IC30001
IC3602
EE
OSD
VV
IC30007
FL30002
DELAY LINE FILTER
IC30019
IC30018
IC30017
CHARA. GENE.
V-IN
V-OUT
Y-OUT
FL30001
DELAY
CVBS
R
G
B
IC30016
TEXT IC
IC30013
OSD Micro Computer
IC30012
EEPROM
IC30015
EPROM
A / V DIGITAL
IC3004
AV I / F
PB C
PB Y
IC3001
DV I / F
X3001
OSC 27MHz
IC3002
SHUFFLING MEMORY
IC3005
VCO
IC3003(CAS)
COMPRESSION / AUDIO / SHUFFLE
IC3008
SUB Micro Computer
RS232C JACK
IC2002
PC I / F
IC2005
PC I / F Micro Computer
IC2001(LSI)
LSI Micro Computer
IC30005/06
BGP GENE. H UE CONTROL
IC30011
SYNC SEP
V
H
IC30010
EDIT CHARACTER
IC2205
EDIT Micro Computer
⑤
EDIT 5P JACK
VIDEO / AUDIO DATA (4 BIT)
IC3201(EDA)
ERROR CORR-ECTION / DCI / ATF SERVO
DATA (9 BIT)
ADDRESS (16 BIT)
ERROR CORR-ECTION / CODE MEMORY
IC3202 (ECC MEMORY)
REC DATA
PB DATA (7 BIT)
IC3204 (BITERBI)
A/D
IC3203
EQ
IC3701
DIGITAL I / F
IC4501
PCM AUDIO
A / D
D / A
IC4201
AMP
IC4210
AMP
R
L
HEAD AMP
IC5001
HEAD AMP
DV TERMINAL
CYLINDER
IC2708
CYLINDER / CAPSTAN MOTOR DRIVE
IC2709
MOTOR DRIVE
IC2710
MOTOR DRIVE
IC2714/15
FG / PG AMP
PG
FG
CAPSTAN
IC2711
MOTOR DRIVE
IC2712
MOTOR DRIVE
IC2706/07
FG AMP
FG1
FG2
MECHA DRIVE
IC6001
SYSTEM CONTROL & SERVO
EDITING CONTROLLER TERMINAL
EDITING CONTROLLER
MODULAR JACK
IR RECEIVER
MIC TERMINAL
DEW
S-PHOTO Tr
T-PHOTO Tr
S6504
DIP SW
IC2703
MOTOR DRIVE
M
T-REEL MOTOR
IC2704
MOTOR DRIVE
S-REEL MOTOR
IC6503/04/05/11
TENSION DETECT
TENSION SENSOR
IC6512
SUB Micro Computer
IC6501
MOTOR DRIVE
TAPE MOTOR
IC6502
MOTOR DRIVE
TRAY MOTOR
SOLENOID DRIVE
CLEANER SOLENOID
IC6301/02/03
SOLENOID DRIVE
PINCH SOLENOID
SUPPLY SOLENOID
MODE SW
S-TAB SW
TAKEUP SOLENOID
IC2208
SUB Micro Computer
IC2207
SUB Micro Computer
FRONT LEFT CIRCUIT
IC2203
MAIN Micro Computer
TIMER
IC7503
LED DRIVE
FRONT LED
DP7501
FIP
IC7504
LEVEL METER DRIVE
IC7502
RESET
IC7501
TIMER Micro Computer
FRONT RIGHT CIRCUIT
AUDIO
IC4310
AMP
IC4302/06
AUDIO AMP
IC4001
A (R) SELE
IC4003
IC4305/08
AUDIO AMP
IC4313
AUDIO (R) OUT
AUDIO (L) OUT
FROM RF CONV.
A (R) IN
A (L) IN
IC4002
A (L) SELE
MIC IN
VR4801
HP VR
HEADPHONE OUTPUT
IC4312
HP AMP
IC4307
RF AMP
RF A-OUT
IC4315
AMP
IC4314
IC4311
AMP
IC4309
PB R
PB L

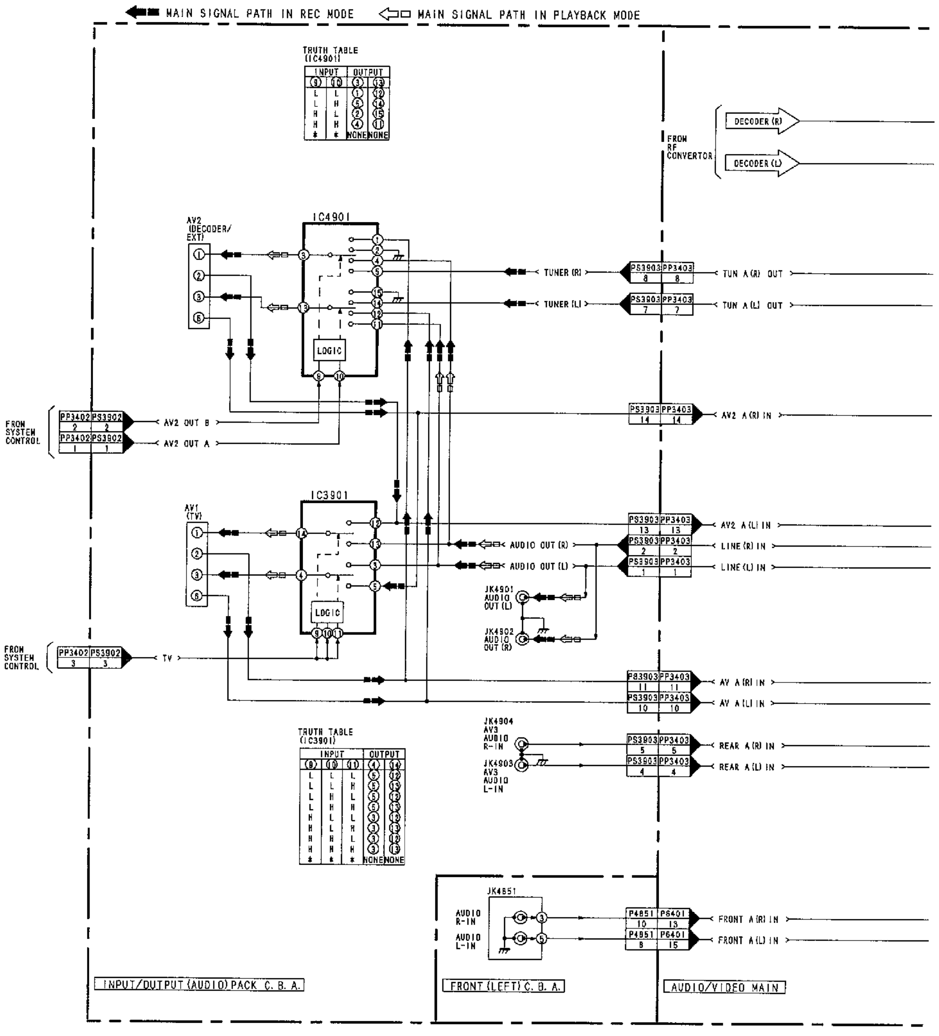
3-3. SYSTEM CONTROL & SERVO BLOCK DIAGRAM


MECHANISM DRIVE C. B. A.
DIGITAL C. B. A.
MAIN C. B. A.
Q6504 TENSION REC. AMP
IC6503 TENSION REF. VOL.
IC6504
IC6505 TENSION VCC CTL
IC6511 AMP
VR6501 TENSION SET
VR6502 TENSION GAIN
IC2703 (T-REEL MOTOR DRIVE)
IC2704 (S-REEL MOTOR DRIVE)
IC2702
VR2702 T VR
VR2701 S-VR
T-REEL MOTOR
S-REEL MOTOR
TAPE MOTOR
TRAY MOTOR
IC6501 (TAPE MOTOR DRIVE)
IC6502 (TRAY MOTOR DRIVE)
IC6512 (SUB MICON)
IC6513
D6511
Q6517
QR6508
QR6503
QR6514
QR6515
D6503, 6505 D6504, 6511 SOLENOID DRIVE
TO SOLENOID DRIVE
CLEANER SOLENOID
DEW SENSOR
T. PHOTO
S. PHOTO
S-TAB SW
MIC SW
MIC CLK
MIC DATA
MIC VDD
TP6504
TP6505
Q6502
QR6502
S6504 DIP SW
N SW 5.2V
QR2217 AMP
QR2218
QR2216 AMP
QR2214
QR6001
QR2210 AMP
QR2205 QR2212 AMP
QR2215 AMP
DATA OUT
DATA IN
CLOCK
IC6001
X6001 OSC
27MHz IN
27MHz OUT
TENSION
T ON
T ET
T. RF
T. FG1
T FG1
T FG2
T. DIR
S. DIR
S ON
S ET
S. RF
S. FG1
S FG1
S FG2
LOAD
UNLOAD
SLPR DATA OUT
SLPR DATA IN
SLPR CLOCK
CS1
CS3
CS2
CS0
SP CLOCK
SP DATA OUT
SP DATA IN
DEW
S PHOTO
T PHOTO
PHOTO SNS LED
MIC ON
MIC AD2
MIC CLK
MIC AD3
MIC DATA
MIC AD1
Q6001
IC6003
IC6001-M REC/PLAY 3.5Vp-p (1msec. div)
IC6001-55 REC/PLAY 4.0Vp-p (0.5msec. div)
IC6001-81 REC/PLAY 3.5Vp-p (0.2msec. div)
IC6001-83 REC/PLAY 3.8Vp-p (5μsec. div)
IC6001-92 REC/PLAY 6.3Vp-p (1μsec. div) IC6001-93 REC/PLAY 7.0Vp-p (1μsec. div)
IC6001-107, 108 REC/PLAY 3.3Vp-p (0.5μsec. div)
EDIT CLOCK
EDIT DATA OUT
EDIT DATA IN
CYLINDER DRIVE CLOCK
CYLINDER ON
CYLINDER FG
CYLINDER TORQUE
CAPSTAN R/S/F
CAPSTAN TORQUE
CAP. TORQUE LIMIT
CAP FG2
CAP FG0
CAP FG1
CAP FG
CAP DIR
IC6005
IC6004
IC2205 (EDIT MICROPROCESSOR)
SYSTEM CLOCK
SYSTEM DATA IN
SYSTEM DATA OUT
EE DATA IN
EE DATA OUT
EE CLOCK
EE CS0
RESET
OSC IN
OSC OUT
Q2201
QR2203
Q2202
QR2204
NON SW 5V
NON SW 5.2V
IC2204 (EEPROM)
IC2201
QR2208
X2203 7.37MHz
D1
D2
D3
D4
D5
D6
D7
D8
D9


IC2202 (CLOCK/DATA SELECT)
LOGIC CONT.
Q2203
QR2204
QR2205
NON SW 5V
DATA IN
DATA IN
DATA OUT
CLOCK INPUT
BUS SELECT (B)
BUS SELECT (A)
5P CLOCK
L CLOCK CNT
L CLOCK
OSD CLOCK
OSD DATA
OSD CS
COLOR ADJ
COLOR CTL
INSIDE
OSD ON
TO ANALOG Y/C CIRCUIT
TO I/O CIRCUIT
5P DATA
5P CLOCK
5P JACK
TO AUDIO CIRCUIT
FROM I/O CIRCUIT
IC2205-1 REC/PLAY 5.0Vp-p (0.5msec. div)
IC2205-2 REC/PLAY 5.0Vp-p (0.5msec. div)
IC2205-9 REC/PLAY 5.0Vp-p (0.5msec. div)
IC2205-10 REC/PLAY 5.0Vp-p (0.5msec. div)
IC2205-11 REC/PLAY 5.0Vp-p (0.5msec. div)
FRONT RIGHT CIRCUIT
DIRECT TV REC
CH UP
TIMER REC
CH DOWN
REC
MIXING EDIT
MIX SW
QR4801
REG 5V
AD 4
AD 3
AD 2
MIX (L)
MIX SW
FRONT LEFT CIRCUIT
EDIT MODE 1 S4852
PASSIVE RECORDER PLAYER
EDIT MODE 2 S4853
P.B MODE
REC MODE
DV MODE
EDIT MODE
RS MODE
BM MODE
PR MODE
POWER
IR RECEIVER
POWER SW
IR
TRAY DOWN
TRAY CLOSE
MODE SW
IC2203
METER OFF
32KHz OUT
32KHz IN
16MHz OUT
16MHz IN
5P CLK
5P DATA IN
5P DATA OUT
OSD/FIP CS
T. TLK
T. LSN
T. CLOCK
IR DATA
P. ON
X2202
X2201
OSC
VC2201 16MHz OSC
QR2221 Q2207
QR2220 Q2208
AMP
IC2208 (SUB MICROPROCESSOR)
L-CH
R-CH
MIX
DO
DI
CLK
CS2
QR2209
IC2207 (SUB MICROPROCESSOR)
MIX
P.B
REC
DV
EDIT
RS
BM
PR
TRAY DOWN
TRAY CLOSE
POS 1
POS 2
POS 3
S. TAB
CS0
QR2213
QR2211
QR2201 QR2202
TIMER C. B. A.
L-CH (L)
R-CH (L)
METER OFF
FROM AUDIO CIRCUIT
METER (L)
METER (R)
QR7518
QR7519
QR7517
QR7516
QR7515
REG 5V
DP7501 (FIP)
IC7504
ICH AC IN
2CH AC IN
FIX1
FIX2
GRID. 2
GRID. 1
VR4004 METER ADJ
IC7501
OSD CS
T. BUS TLK
T. BUS LSN
T. BUS CLK
X IN
X OUT
X7501
SEG0
SEG17
DIG1
DIG7
AD4
AD3
AD2
RESET
S7501 EJECT
IC7502
NON SW 5V
IC7503-1 STOP 5.0Vp-p (5msec. div)
IC7503-2 STOP 5.0Vp-p (5msec. div)
IC7503-3 STOP 5.0Vp-p (5msec. div)
IC7503 (LED DRIVE)
CAS S
CAS L
DIG IN
DIG OUT
16 bit
12 bit
ST 1
ST 2
BV-3
BV-1
DIG IN
DIG OUT
16bit
12bit
ST1
ST2
STANDBY
POWER
T. REC
TAPE
QR7520
QR7521
QR7522
QR7523
TAPE
T. REC
POWER
STAND BY
REMOTE LED
JOG
Y. INS
A. DUB
A. INS
ST2 MONI
ST1 MONI
JOG
INS
A. DUB
A. INS
ST2 MONI
ST1 MONI
P7701
EDITING CONTROLLER TERMINAL
JX7601
WIRELESS CONTROLLER JACK


<MOTOR DRIVE>
IC2708 (CYL/CAP DRIVE)
N. SW 3V
VCC
TRANSISTOR SATURATION DETECTOR
Y SW
P2705 P2502 7 7
IC2709 (CYLINDER UPPER SIDE DRIVE)
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
DRIVE TRANSISTOR CONTROL
YVN
D1 DRIVE CLOCK
D2 CYLINDER ON
D4 CYLINDER EC
IC2710 (CYLINDER LOWER SIDE DRIVE)
R2751
R2752
Q2501
UNREG 6V
L2501
P2502 P2705 8 8
P2703 8, 9 MAIN COIL3
P2703 1, 2 MAIN COIL2
P2703 5, 6 MAIN COIL1
P2703 3 FG
P2703 7 PG
DD CYLINDER MOTOR
IC2714 IC2715
PG AMP COMPARATOR
FG AMP COMPARATOR
QR2701
TO VIDEO CIRCUIT
Q2506
L2502
P2502 P2705 5 5
TRANSISTOR SATURATION DETECTOR
CSW
P2705 P2502 4 4
IC2711 (CAPSTAN UPPER SIDE DRIVE)
CVM
D5 CAPSTAN R/S/F
DIRECTION LOGIC
DIRECTION DETECTOR
DIRECTION SWITCHING
DRIVE TRANSISTOR CONTROL
R2800
IC2712 (CAPSTAN LOWER SIDE DRIVE)
MATRIX
LIMITER
D6 CAPSTAN TORQUE
D7 TORQUE LIMIT
CECR
H1+ F1
H1- F2
H2+ F3
H2- F4
H3+ F5
H3- F6
IC6503
N. SW 3V
D3
D8
D9
IC2706
IC2707
Ref. 1.5V
Ref. 1.5V
Ref. 1.5V
Q2703 AMP
Q2704 AMP
5V
DD CAPSTAN MOTOR
P2704 15 MAIN COIL3
P2704 14 MAIN COIL2
P2704 1 MAIN COIL1
P2704 16
P2704 17
P2704 19
P2704 3
P2704 13
P2704 8
FG1
FG2
HALL IC1
HALL IC2
HALL IC3
P2704 7
P2704 9
P2704 12
P2704 10
P2704 2
P2704 4
P2704 6
P2704 11
P2704 5
E

3-4. AUDIO BLOCK DIAGRAM

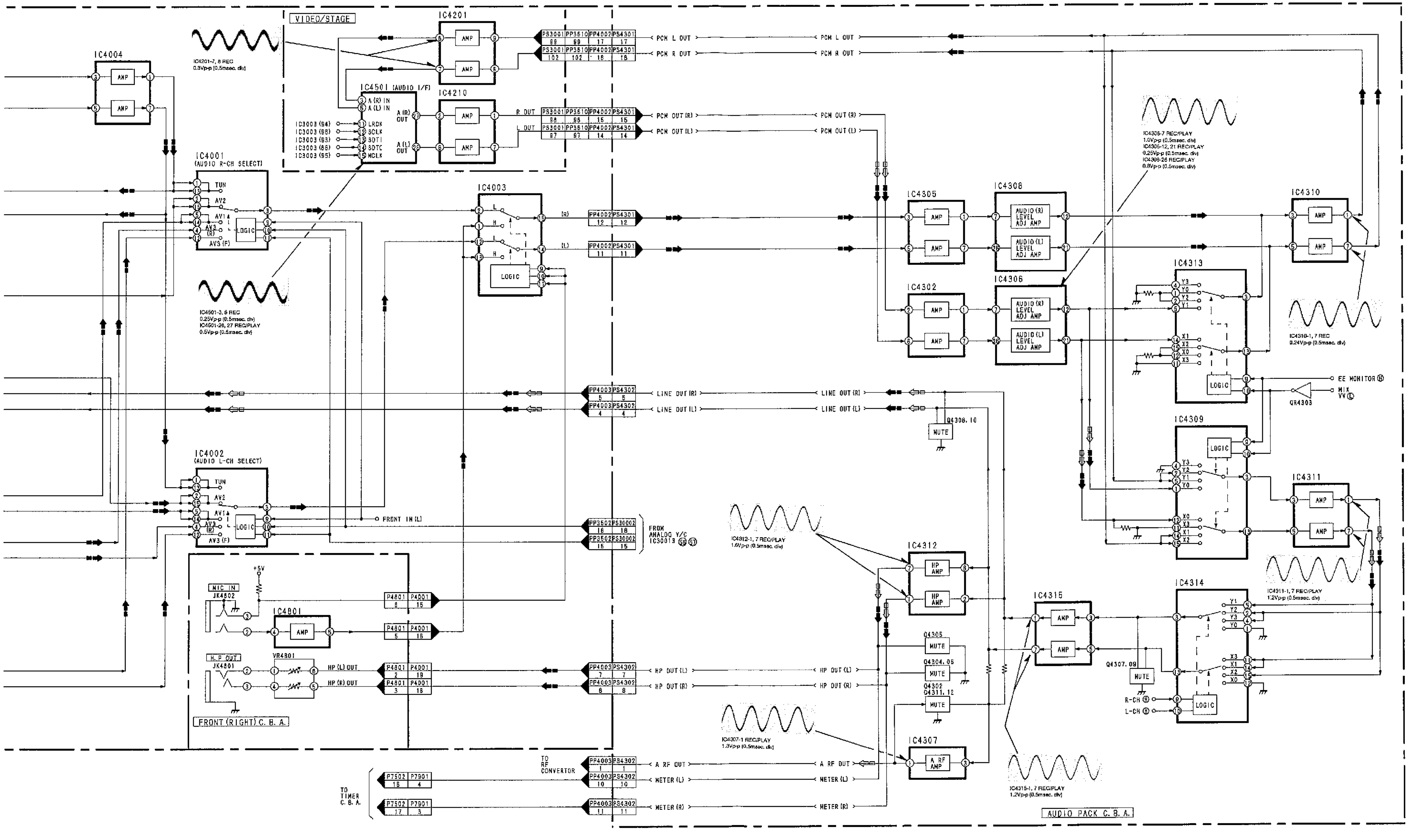

MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
FROM RF CONVERTOR
DECODER (R)
DECODER (L)
AV2 (DECODER/EXT)
IC4901
LOGIC
TUNER (R)
TUNER (L)
PS3903 PP3403 8 8 TUN A(R) OUT
PS3903 PP3403 7 7 TUN A(L) OUT
FROM SYSTEM CONTROL
PP3402 PS3902 2 2 AV2 OUT B
PP3402 PS3902 1 1 AV2 OUT A
PS3903 PP3403 14 14 AV2 A(R) IN
AV1 (TV)
IC3901
LOGIC
AUDIO OUT (R)
AUDIO OUT (L)
PS3903 PP3403 13 13 AV2 A(L) IN
PS3903 PP3403 2 2 LINE (R) IN
PS3903 PP3403 1 1 LINE (L) IN
JK4901 AUDIO OUT (L)
JK4902 AUDIO OUT (R)
FROM SYSTEM CONTROL
PP3402 PS3902 3 3 TV
PS3903 PP3403 11 11 AV A(R) IN
PS3903 PP3403 10 10 AV A(L) IN
JK4904 AV3 AUDIO R-IN
JK4903 AV3 AUDIO L-IN
PS3903 PP3403 5 5 REAR A(R) IN
PS3903 PP3403 4 4 REAR A(L) IN
JK4851
AUDIO R-IN
AUDIO L-IN
P4851 P6401 10 13 FRONT A(R) IN
P4851 P6401 8 15 FRONT A(L) IN
INPUT/OUTPUT (AUDIO) PACK C. B. A.
FRONT (LEFT) C. B. A.
AUDIO/VIDEO MAIN

TRUTH TABLE
(IC4901)

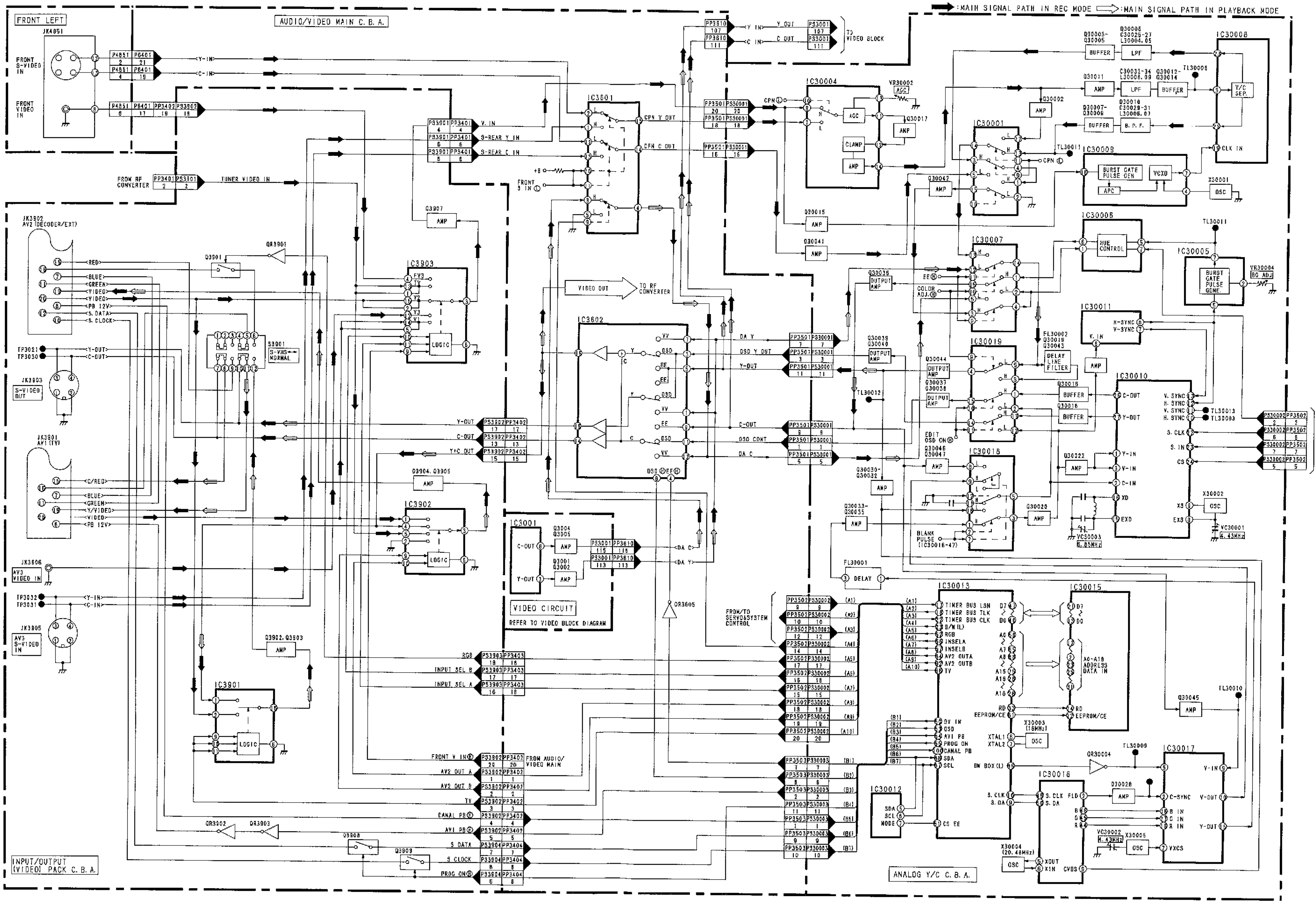
INPUT		OUTPUT	
⑨	⑩	③	⑬
L	L	①	⑫
L	H	⑤	⑭
H	L	②	⑮
H	H	④	⑪
*	*	NONE	NONE

TRUTH TABLE
(IC3901)

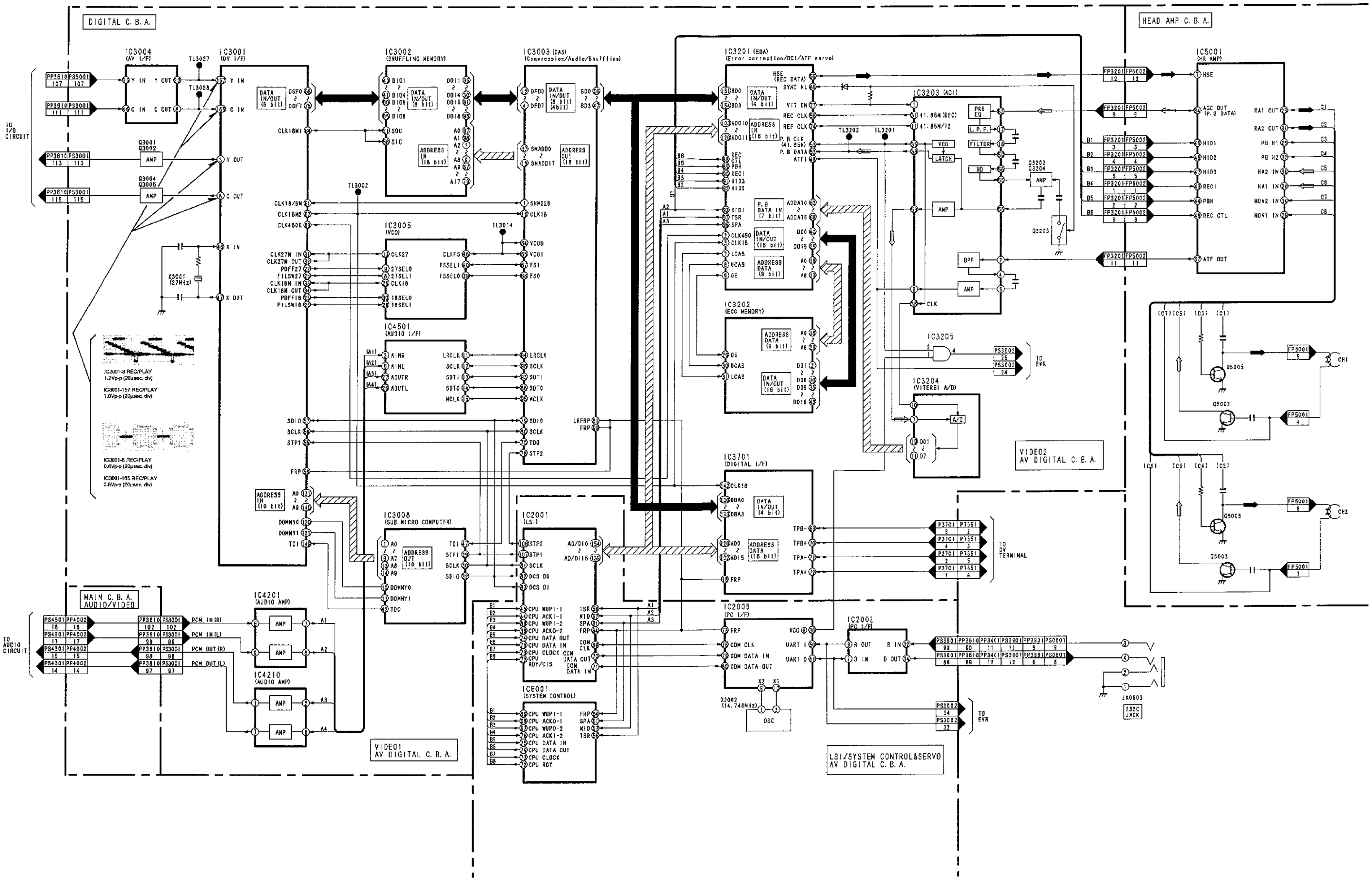
INPUT			OUTPUT	
⑧	⑩	⑪	④	⑭
L	L	L	⑤	⑫
L	L	H	⑤	⑬
L	H	L	⑤	⑫
L	H	H	⑤	⑬
H	L	L	③	⑫
H	L	H	③	⑬
H	H	L	③	⑫
H	H	H	③	⑬
*	*	*	NONE	NONE


VIDEO/STAGE
IC4004
AMP
IC4201
IC4210
IC4501 (AUDIO I/F)
A (R) IN
A (L) IN
LRCK
SCLK
SDTI
SDTO
MCLK
A (R) OUT
A (L) OUT
IC3003 (94)
IC3003 (98)
IC3003 (93)
IC3003 (86)
IC3003 (95)
R OUT
L OUT
IC4201-7, 8 REC
0.3Vp-p (0.5msec. div)
IC4001 (AUDIO R-CH SELECT)
IC4002 (AUDIO L-CH SELECT)
TUN
AV2
AV1
AV3
AV3 (F)
LOGIC
IC4501-3, 6 REC
0.25Vp-p (0.5msec. div)
IC4501-26, 27 REC/PLAY
0.5Vp-p (0.5msec. div)
IC4003
FRONT IN (L)
FRONT (RIGHT) C. B. A.
MIC IN
JK4802
+5V
IC4801
H.P OUT
JK4801
VR4801
HP (L) OUT
HP (R) OUT
PS3001
PP3610
PP4002
PS4301
PP4003
PS4302
PP3502
PS30002
P4801
P4001
P7502
P7901
PCM L OUT
PCM R OUT
PCM OUT (R)
PCM OUT (L)
LINE OUT (R)
LINE OUT (L)
FROM ANALOG Y/C IC30013 (56) (57)
HP OUT (L)
HP OUT (R)
A RF OUT
METER (L)
METER (R)
TO RF CONVERTOR
TO TIMER C. B. A.
IC4305
IC4302
IC4308
IC4306
AUDIO (R) LEVEL ADJ AMP
AUDIO (L) LEVEL ADJ AMP
IC4306-7 REC/PLAY
1.0Vp-p (0.5msec. div)
IC4306-12, 21 REC/PLAY
0.25Vp-p (0.5msec. div)
IC4306-26 REC/PLAY
0.8Vp-p (0.5msec. div)
IC4310
IC4310-1, 7 REC
0.24Vp-p (0.5msec. div)
IC4313
IC4309
IC4311
IC4311-1, 7 REC/PLAY
1.2Vp-p (0.5msec. div)
IC4314
Y0
Y1
Y2
Y3
X0
X1
X2
X3
EE MONITOR (H)
MIX VV (L)
QR4303
Q4306, 10
MUTE
IC4312
HP AMP
IC4312-1, 7 REC/PLAY
1.6Vp-p (0.5msec. div)
Q4305
Q4304, 06
Q4302 Q4311, 12
IC4307
A RF AMP
IC4307-1 REC/PLAY
1.3Vp-p (0.5msec. div)
IC4315
IC4315-1, 7 REC/PLAY
1.2Vp-p (0.5msec. div)
Q4307, 09
R-CH (H)
L-CH (H)
AUDIO PACK C. B. A.

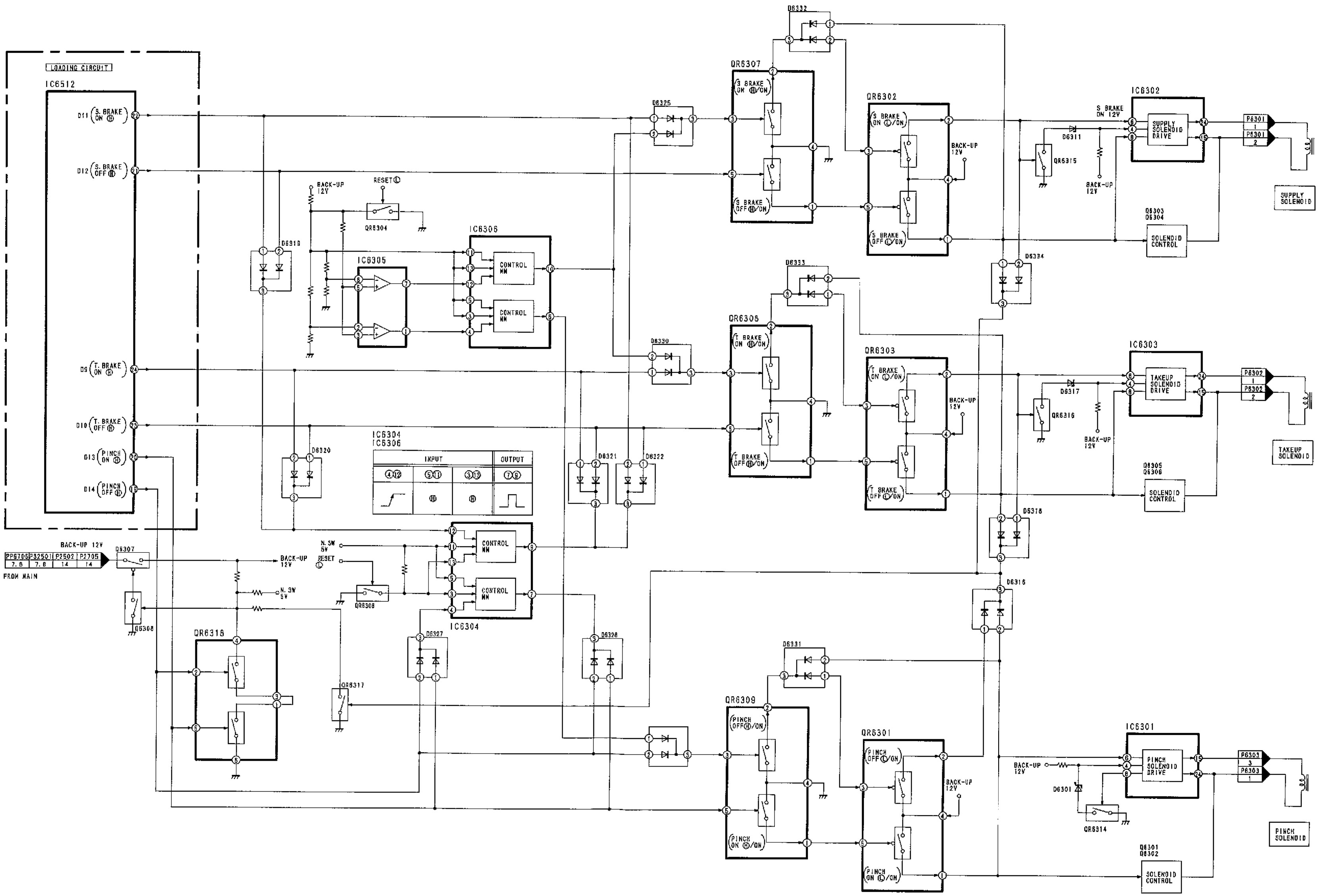
3-5. INPUT/OUTPUT BLOCK DIAGRAM


:MAIN SIGNAL PATH IN REC MODE
:MAIN SIGNAL PATH IN PLAYBACK MODE
FRONT LEFT
JK4851
FRONT S-VIDEO IN
FRONT VIDEO IN
AUDIO/VIDEO MAIN C. B. A.
FROM RF CONVERTER
TUNER VIDEO IN
JK3802 AV2 (DECODER/EXT)
JK3801 AV1 (TV)
JK3803 S-VIDEO OUT
JK3806 AV3 VIDEO IN
JK3805 AV3 S-VIDEO IN
INPUT/OUTPUT (VIDEO) PACK C. B. A.
IC3601
IC3602
IC3903
IC3902
IC3901
IC3001
VIDEO CIRCUIT
REFER TO VIDEO BLOCK DIAGRAM
VIDEO OUT
TO RF CONVERTER
T2 VIDEO BLOCK
IC30004
IC30001
IC30009
IC30008
IC30006
IC30005
IC30007
IC30011
IC30019
IC30010
IC30018
IC30013
IC30015
IC30012
IC30016
IC30017
FROM SYSTEM CONTROL
FROM/TO SERVO&SYSTEM CONTROL
FROM AUDIO/VIDEO MAIN
ANALOG Y/C C. B. A.
AGC
CLAMP
AMP
BUFFER
LPF
B. P. F.
Y/C SEP.
BURST GATE PULSE GEN
APC
VCXO
OSC
HUE CONTROL
BURST GATE PULSE GENE.
BG ADJ
DELAY LINE FILTER
OUTPUT AMP
DELAY
LOGIC
S3901 S-VHS↔NORMAL
A6~A18 ADDRESS DATA IN
X30001
X30002
X30003 (18MHz)
X30004 (20.48MHz)
X30005
VC30001 4.43MHz
VC30002 4.43MHz
VC30003 6.85MHz
BLANK PULSE (IC30016-47)
COLOR ADJ.
EDIT OSD ON
Y-IN
C-IN
Y-OUT
C-OUT
Y+C OUT
DA Y
DA C
OSD Y OUT
OSD CONT
RGB
INPUT SEL B
INPUT SEL A
FRONT V IN
AV2 OUT A
AV2 OUT B
TV
CANAL PB
AV1 PB
S DATA
S CLOCK
PROG ON
V. IN
S-REAR Y IN
S-REAR C IN
CPN Y OUT
CFN C OUT
FRONT 9 IN
TIMER BUS LSN
TIMER BUS TLK
TIMER BUS CLK
INSELA
INSELB
AV2 OUTA
AV2 OUTB
EEPROM/CE
XTAL1
XTAL2
BW BOX (L)
S. CLK
S. DA
SDA
SCL
MODE
CS EE
V. SYNC
H. SYNC
XDUT
XIN
CVBS
C-SYNC
VXCS
QR3901
QR3902
QR3903
QR3605
QR30004

3-6. VIDEO BLOCK DIAGRAM

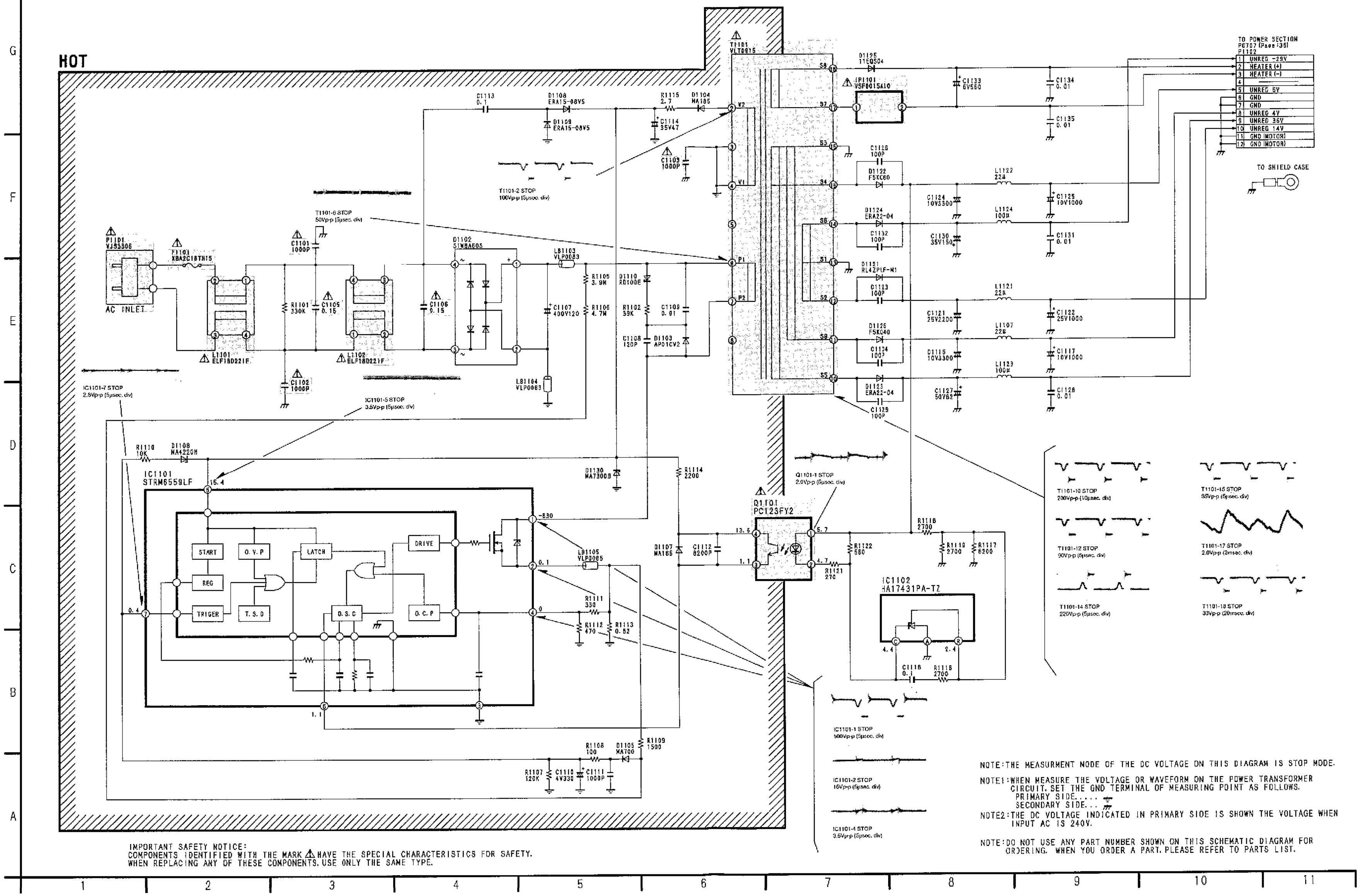

DIGITAL C. B. A.
HEAD AMP C. B. A.
VIDEO2 AV DIGITAL C. B. A.
VIDEO1 AV DIGITAL C. B. A.
LSI/SYSTEM CONTROL&SERVO AV DIGITAL C. B. A.
MAIN C. B. A. AUDIO/VIDEO
TO I/O CIRCUIT
TO AUDIO CIRCUIT
TO EVR
TO DV TERMINAL
IC3004 (AV I/F)
Y IN
Y OUT
C IN
C OUT
IC3001 (DV I/F)
DATA IN/OUT (8 bit)
DSF0
DSF7
CLK18MI
CLK18/8M
CLK18M2
CLK450K
CLK27M IN
CLK27M OUT
PDFF27
FILSW27
CLK18M IN
CLK18M OUT
PDFF18
FILSW18
X IN
X OUT
SDIO
SCLK
STP1
FRP
ADDRESS IN (10 bit)
A0
A9
DOMNY0
DOMNY1
TDI
TL3027
TL3028
TL3002
TL3014
Q3001 Q3002
Q3004 Q3005
AMP
X3001 (27MHz)
IC3002 (SHUFFLING MEMORY)
DATA IN/OUT (8 bit)
DI01
DI04
DI05
DI08
DO11
DO14
DO15
DO18
ADDRESS IN (18 bit)
A0
A1
A2
A8
A9
A17
SOC
SIC
IC3003 (CAS) (Compression/Audio/Shuffling)
DATA IN/OUT (8 bit) (4 bit)
DFO0
DFO7
BDO0
BD3
SMADD0
SMADD17
ADDRESS OUT (18 bit)
SRK225
CLK18
VCO0
VCO1
FS1
FS0
LRCLK
SCLK
SDTI
SDTO
MCLK
SDIO
TDO
STP2
LRFRP
FRP
IC3005 (VCO)
CLK27
27SEL0
27SEL1
CLK18
18SEL0
18SEL1
CLKFS
FSSEL1
FSSEL0
IC4501 (AUDIO I/F)
AINR
AINL
AOUTR
AOUTL
(A1)
(A2)
(A3)
(A4)
IC3008 (SUB MICRO COMPUTER)
ADDRESS OUT (10 bit)
A0
A7
A8
A9
TDI
STP1
SCLK
SDIO
DOMNY0
DOMNY1
TDO
IC4201 (AUDIO AMP)
IC4210 (AUDIO AMP)
PCM IN (R)
PCM IN (L)
PCM OUT (R)
PCM OUT (L)
IC2001 (LSI)
STP2
STP1
SCLK
DCS DO
DCS DI
AD/DI0
AD/DI15
TSR
NID
SPA
FRP
COM CLK
COM DATA OUT
COM DATA IN
CPU WUP1-1
CPU ACK1-1
CPU WUP1-2
CPU ACKO-2
CPU DATA OUT
CPU DATA IN
CPU CLOCK
CPU RDY/CIS
IC6001 (SYSTEM CONTROL)
CPU WUP1-1
CPU ACKO-1
CPU WUPO-2
CPU ACK1-2
CPU DATA IN
CPU DATA OUT
CPU CLOCK
CPU RDY
B1
B2
B3
B4
B5
B6
B7
B8
IC3201 (EDA) (Error correction/DCI/ATF servo)
HSE (REC DATA)
SYNC HL
VIT ON
REC CLK
REF CLK
P. B CLK (41. 85M)
P. B DATA
ATFI
BDO
BD3
DATA IN/OUT (4 bit)
ADDRESS IN (18 bit)
ADDI0
ADDI11
REC
CFL
PBH
RECI
HID3
HID2
KIDI
TSR
SPA
CLK450
CLK18
LCAS
UCAS
OE
P. B DATA IN (7 bit)
ADDAT0
ADDAT6
DATA IN/OUT (16 bit)
DO0
DO15
ADDRESS DATA (9 bit)
A0
A8
TL3202
TL3201
IC3202 (ECC MEMORY)
ADDRESS DATA (9 bit)
DATA IN/OUT (16 bit)
DO1
DO8
DO9
DO16
IC3203 (ACI)
41. 85M (REC)
41. 85M/72
PRE EQ
L. P. F.
FILTER
HD
VCO
LATCH
AMP
BPF
CLK
Q3202 Q3204
Q3203
IC3205
IC3204 (VITERBI A/D)
A/D
DO1
D7
IC3701 (DIGITAL I/F)
CLK18
DBBA0
DBBA3
DATA IN/OUT (4 bit)
ADDRESS DATA (16 bit)
AD0
AD15
FRP
TPB-
TPB+
TPA-
TPA+
IC2005 (PC I/F)
FRP
COM CLK
COM DATA IN
COM DATA OUT
VCO
UART I
UART 0
X2
X1
X2002 (14. 745MHz)
OSC
IC2002 (PC I/F)
R OUT
R IN
D IN
D OUT
JK0803
RS232C JACK
IC5001 (HR AMP)
HSE
AGC OUT (P. B DATA)
HID1
HID2
HID3
RECI
PBH
REC CTL
ATF OUT
RA1 OUT
RA2 OUT
PB H1
PB H2
RA2 IN
RA1 IN
MON2 IN
MON1 IN
C1
C2
C3
C4
C5
C6
C7
C8
Q5005
Q5002
Q5006
Q5003
CH1
CH2
FP3201
FP5002
FP5001
PP3610
PS3001
PS4301
PF4002
P3701
P7351
PS3002
PP3610
PP3401
PS3901
PS0801
IC3001-3 REC/PLAY
1.2Vp-p (20µsec. div)
IC3001-157 REC/PLAY
1.0Vp-p (20µsec. div)
IC3001-8 REC/PLAY
0.6Vp-p (20µsec. div)
IC3001-165 REC/PLAY
0.6Vp-p (20µsec. div)

3-7. SOLENOID BLOCK DIAGRAM


LOADING CIRCUIT
IC6512
D11 (S. BRAKE ON Ⓗ)
D12 (S. BRAKE OFF Ⓗ)
D9 (T. BRAKE ON Ⓗ)
D10 (T. BRAKE OFF Ⓗ)
D13 (PINCH ON Ⓗ)
D14 (PINCH OFF Ⓗ)
PP6706 P32501 P2502 P2705
7.8 7.8 14 14
FROM MAIN
BACK-UP 12V
Q6307
Q6308
D6310
BACK-UP 12V
RESET Ⓛ
QR6304
IC6305
IC6306
CONTROL MM
CONTROL MM
D6320
IC6304
IC6306
INPUT
OUTPUT
④⑫
⑤⑪
③⑬
⑦⑨
Ⓗ
Ⓗ
N.5W 5V
RESET Ⓛ
QR6306
IC6304
CONTROL MM
CONTROL MM
D6321
D6322
D6327
D6328
QR6318
N.5W 5V
QR6317
D6325
D6330
D6332
D6333
D6331
QR6307
(S BRAKE ON Ⓗ/ON)
(S BRAKE OFF Ⓗ/ON)
QR6308
(T BRAKE ON Ⓗ/ON)
(T BRAKE OFF Ⓗ/ON)
QR6309
(PINCH OFF Ⓗ/ON)
(PINCH ON Ⓗ/ON)
QR6302
(S BRAKE ON Ⓛ/ON)
(S BRAKE OFF Ⓛ/ON)
BACK-UP 12V
QR6303
(T BRAKE ON Ⓛ/ON)
(T BRAKE OFF Ⓛ/ON)
BACK-UP 12V
QR6301
(PINCH OFF Ⓛ/ON)
(PINCH ON Ⓛ/ON)
BACK-UP 12V
D6334
D6318
D6316
S BRAKE ON 12V
D6311
QR6315
BACK-UP 12V
IC6302
SUPPLY SOLENOID DRIVE
Q6303
Q6304
SOLENOID CONTROL
P6301 1
P6301 2
SUPPLY SOLENOID
D6317
QR6316
BACK-UP 12V
IC6303
TAKEUP SOLENOID DRIVE
Q6305
Q6306
SOLENOID CONTROL
P6302 1
P6302 2
TAKEUP SOLENOID
BACK-UP 12V
D6301
QR6314
IC6301
PINCH SOLENOID DRIVE
Q6301
Q6302
SOLENOID CONTROL
P6303 3
P6303 1
PINCH SOLENOID

3-8. POWER SUPPLY SCHEMATIC DIAGRAM

CAUTION THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.


HOT
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
P1101 VJS5306
AC INLET
F1101 XBA2C18TR15
L1101 ELF18D221F
L1102 ELF18D221F
C1101 1000P
C1102 1000P
R1101 330K
C1105 0.15
C1106 0.15
D1102 S1WBA60S
LB1103 VLP0083
LB1104 VLP0083
C1107 400V120
R1105 3.9K
R1106 4.7M
D1110 RD100E
R1102 39K
C1109 0.01
C1108 120P
D1103 AP01CV2
C1113 0.1
D1108 ERA15-08V5
D1109 ERA15-08V5
R1115 2.7
D1104 MA185
C1114 35V47
C1103 1000P
T1101-2 STOP 100Vp-p (5μsec. div)
T1101-6 STOP 50Vp-p (5μsec. div)
IC1101-7 STOP 2.8Vp-p (5μsec. div)
IC1101-5 STOP 3.5Vp-p (5μsec. div)
T1101 VLT0815
V2
V1
P1
P2
S8
S7
S3
S4
S6
S1
S2
S9
S5
D1125 11EQS04
IP1101 VSF8015A10
C1133 6V560
C1134 0.01
C1135 0.01
C1126 100P
D1122 F5KC60
C1124 10V3300
L1122 22μ
C1125 10V1000
D1124 ERA22-04
C1132 100P
C1130 35V150
L1124 100μ
C1131 0.01
D1121 RL4ZPLF-M1
C1123 100P
C1121 25V2200
L1121 22μ
C1122 25V1000
D1126 F5KQ40
C1104 100P
C1116 10V3300
L1107 22μ
C1117 10V1000
D1123 ERA22-04
C1129 100P
C1127 50V82
L1123 100μ
C1128 0.01
TO POWER SECTION P6707 (Page 35)
P1102
1 UNREG -29V
2 HEATER (+)
3 HEATER (-)
4
5 UNREG 6V
6 GND
7 GND
8 UNREG 4V
9 UNREG 36V
10 UNREG 14V
11 GND (MOTOR)
12 GND (MOTOR)
TO SHIELD CASE
R1110 10K
D1108 MA4220H
IC1101 STRM6559LF
15.4
0.4
1.1
-830
0.1
0
START
O.V.P
LATCH
DRIVE
REG
TRIGER
T.S.D
O.S.C
O.C.P
LB1105 VLP0085
R1111 330
R1112 470
R1113 0.82
D1130 MA7300B
R1114 2200
D1107 MA165
C1112 8200P
R1108 100
D1105 MA700
R1109 1500
R1107 120K
C1110 4V330
C1111 1000P
Q1101-1 STOP 2.0Vp-p (5μsec. div)
Q1101 PC123FY2
13.6
1.1
5.7
4.7
R1122 560
R1121 270
R1118 2700
R1119 2700
R1117 8200
IC1102 HA17431PA-TZ
4.4
2.4
C1118 0.1
R1116 2700
T1101-10 STOP 200Vp-p (10μsec. div)
T1101-15 STOP 35Vp-p (5μsec. div)
T1101-12 STOP 90Vp-p (5μsec. div)
T1101-17 STOP 2.0Vp-p (2msec. div)
T1101-14 STOP 220Vp-p (5μsec. div)
T1101-18 STOP 33Vp-p (20msec. div)
IC1101-1 STOP 500Vp-p (5μsec. div)
IC1101-2 STOP 16Vp-p (5μsec. div)
IC1101-4 STOP 3.5Vp-p (5μsec. div)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

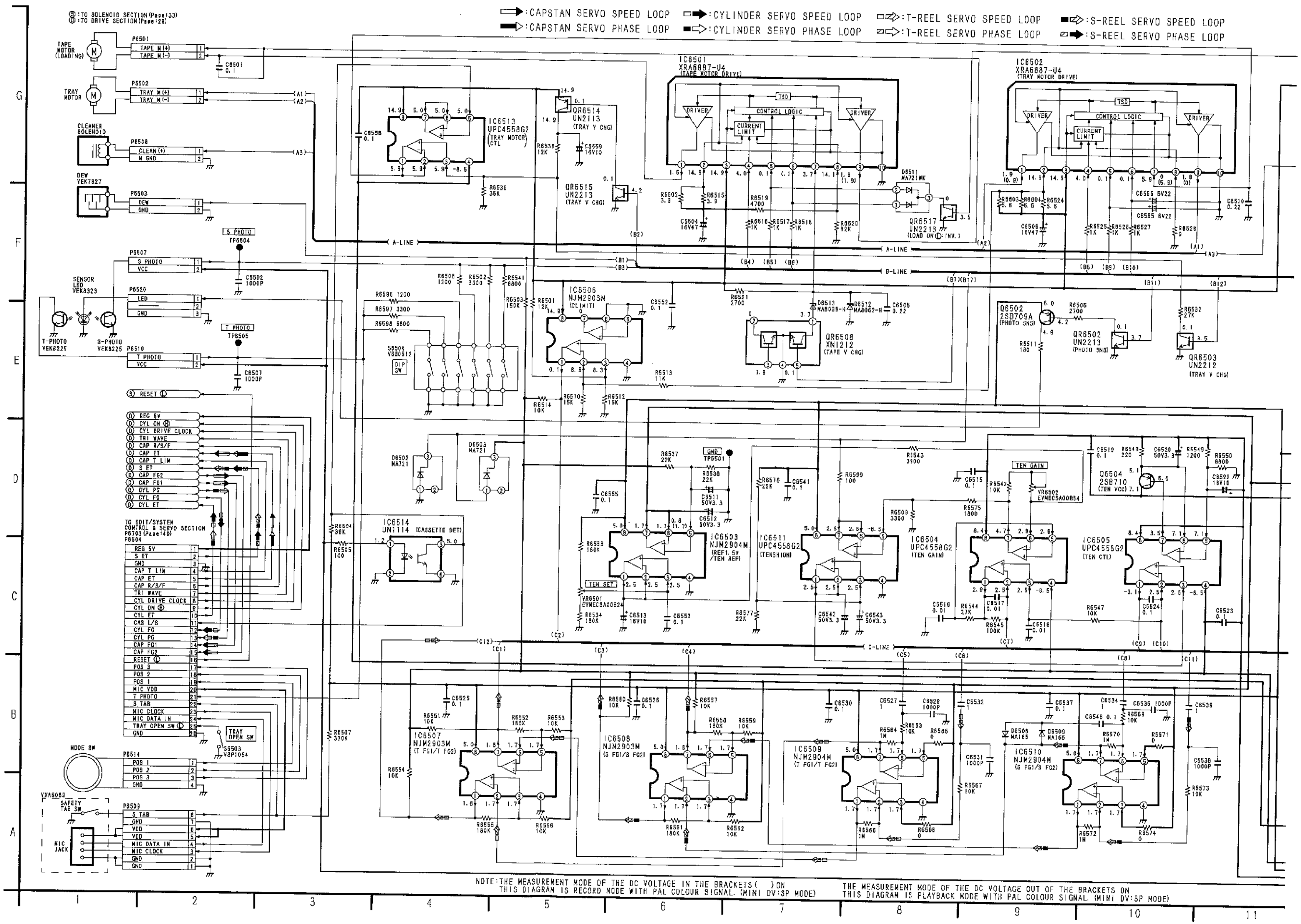
NOTE: THE MEASURMENT NODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE1: WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE..... ⏚
SECONDARY SIDE... ⏚

NOTE2: THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 240V.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-9. LOADING SECTION IN MECHANISM DRIVE SCHEMATIC DIAGRAM

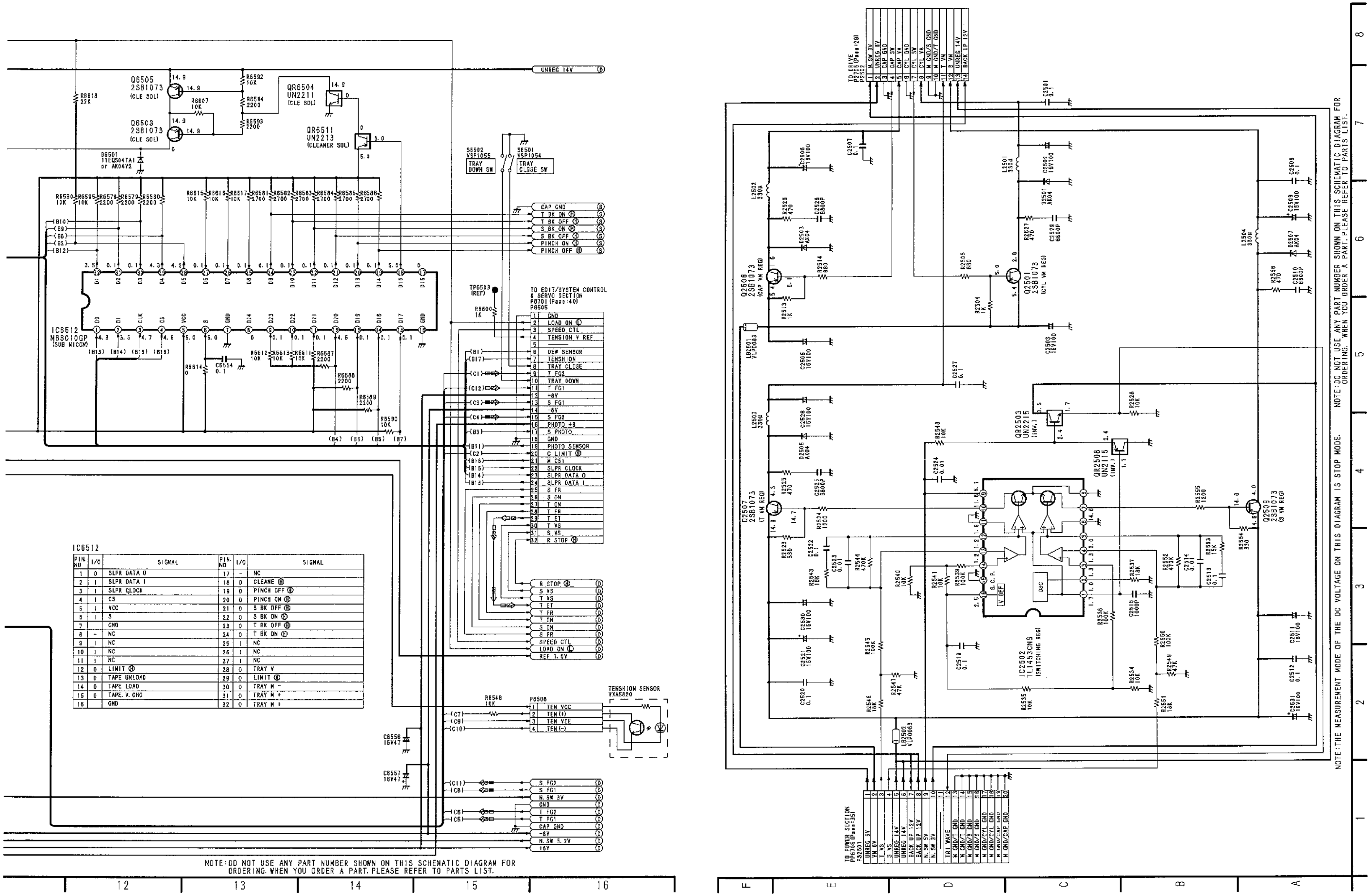


:CAPSTAN SERVO SPEED LOOP
:CAPSTAN SERVO PHASE LOOP
:CYLINDER SERVO SPEED LOOP
:CYLINDER SERVO PHASE LOOP
:T-REEL SERVO SPEED LOOP
:T-REEL SERVO PHASE LOOP
:S-REEL SERVO SPEED LOOP
:S-REEL SERVO PHASE LOOP
Ⓢ:TO SOLENOID SECTION (Page:33)
Ⓓ:TO DRIVE SECTION (Page:28)
TAPE MOTOR (LOADING)
P6501
TAPE M(+)
TAPE M(-)
C6501 0.1
TRAY MOTOR
P6502
TRAY M(+)
TRAY M(-)
CLEANER SOLENOID
P6508
CLEAN(+)
M GND
DEW VEK7927
P6503
DEW
GND
S PHOTO TP6504
P6507
S PHOTO
VCC
C6502 1000P
SENSOR LED VEK8323
P6520
LED
GND
T PHOTO TP6505
T-PHOTO VEK8225
S-PHOTO VEK8225
P6510
T PHOTO
VCC
C6507 1000P
A-LINE
B-LINE
C-LINE
IC6513 UPC4558G2 (TRAY MOTOR) (CTL)
QR6514 UN2113 (TRAY Y CHG)
QR6515 UN2213 (TRAY V CHG)
IC6501 XRA6887-U4 (TAPE MOTOR DRIVE)
DRIVER
CONTROL LOGIC
CURRENT LIMIT
TSD
D6511 MA721WK
QR6517 UN2213 (LOAD ON INV.)
IC6502 XRA6887-U4 (TRAY MOTOR DRIVE)
IC6506 NJM2903M (CL LIMIT)
QR6508 XN1212 (TAPE V CHG)
Q6502 2SB709A (PHOTO SNS)
QR6502 UN2213 (PHOTO SNS)
QR6503 UN2212 (TRAY V CHG)
S6504 VSS0512
DIP SW
D6502 MA721
D6503 MA721
IC6514 UN1114 (CASSETTE DET)
GND TP6501
TEN SET
VR6501 EVMECSA00B24
IC6503 NJM2904M (REF1.5V /TEN REF)
IC6511 UPC4558G2 (TENSION)
IC6504 UPC4558G2 (TEN GAIN)
TEN GAIN
VR6502 EVMECSA00B54
Q6504 2SB710 (TEN VCC)
IC6505 UPC4558G2 (TEN CTL)
Ⓢ RESET Ⓓ
Ⓓ REG 5V
Ⓓ CYL ON Ⓗ
Ⓓ CYL DRIVE CLOCK
Ⓓ TRI WAVE
Ⓓ CAP R/S/F
Ⓓ CAP ET
Ⓓ CAP T LIM
Ⓓ S ET
Ⓓ CAP FG2
Ⓓ CAP FG1
Ⓓ CYL PG
Ⓓ CYL FG
Ⓓ CYL ET
TO EDIT/SYSTEM CONTROL & SERVO SECTION P6703 (Page:40) P6504
REG 5V
S ET
GND
CAP T LIM
CAP ET
CAP R/S/F
TRI WAVE
CYL DRIVE CLOCK
CYL ON Ⓗ
CYL ET
CAS I/S
CYL FG
CYL PG
CAP FG1
CAP FG2
RESET Ⓛ
POS 3
POS 2
POS 1
MIC VDD
T PHOTO
S TAB
MIC CLOCK
MIC DATA IN
TRAY OPEN SW Ⓛ
GND
TRAY OPEN SW
S6503 VSP1054
MODE SW
P6514
POS 1
POS 2
POS 3
GND
VXA6069
SAFETY TAB SW
MIC JACK
P6509
S TAB
GND
VDD
VDD
MIC DATA IN
MIC CLOCK
GND
GND
IC6507 NJM2903M (T FG1/T FG2)
IC6508 NJM2903M (S FG1/S FG2)
IC6509 NJM2904M (T FG1/T FG2)
IC6510 NJM2904M (S FG1/S FG2)
D6505 MA165
D6506 MA165
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

3-10. MOTOR DRIVE SCHEMATIC DIAGRAM


IC6512
M66010GP
(SUB MICON)
Q6505
2SB1073
(CLE SOL)
Q6503
2SB1073
(CLE SOL)
QR6504
UN2211
(CLE SOL)
QR6511
UN2213
(CLEANER SOL)
D6501
11EQS04TA1
or AK04V2
S6502
VSP1055
TRAY DOWN SW
S6501
VSP1054
TRAY CLOSE SW
UNREG 14V
TP6503
(REF)
TO EDIT/SYSTEM CONTROL
& SERVO SECTION
P8701 (Page:40)
P6505
GND
LOAD ON Ⓛ
SPEED CTL
TENSION V REF
DEW SENSOR
TENSION
TRAY CLOSE
T FG2
TRAY DOWN
T FG1
+8V
S FG1
-8V
S FG2
PHOTO +8
S PHOTO
GND
PHOTO SENSOR
C LIMIT Ⓗ
M CS1
SLPR CLOCK
SLPR DATA 0
SLPR DATA 1
S FR
S ON
T ON
T FR
T E1
T VS
S VS
R STOP Ⓗ
CAP GND
T BK ON Ⓗ
T BK OFF Ⓗ
S BK ON Ⓗ
S BK OFF Ⓗ
PINCH ON Ⓗ
PINCH OFF Ⓗ
TENSHION SENSOR
VXA5820
P6506
TEN VCC
TEN (+)
TEN VEE
TEN (-)
N.SW 3V
CAP GND
N.SW 5.2V
+5V
C6556
16V47
C6557
16V47
TO DRIVE
P2705 (Page:29)
P2502
N.SW 3V
UNREG 5V
CAP GND
CAP SW
CAP VM
CYL GND
CYL SW
CYL VM
M GND/S GND
M GND/T GND
T VM
S VM
UNREG 14V
BACK UP 12V
Q2506
2SB1073
(CAP VM REG)
Q2501
2SB1073
(CYL VM REG)
Q2507
2SB1073
(T VM REG)
Q2509
2SB1073
(S VM REG)
QR2503
UN2215
(INV.)
QR2508
UN2215
(INV.)
IC2502
TL1453CNS
(SWITCHING REG)
S.C.P.
V REF
OSC
L2501
330μ
L2502
330μ
L2503
330μ
L2504
330μ
LB2501
VLP0083
LB2502
VLP0083
TO POWER SECTION
PP6708 (Page:35)
P32501
UNREG 5V
VM 6V
T VS
S VS
UNREG 14V
BACK UP 12V
N.SW 5V
N.SW 3V
TRI WAVE
M GND/T GND
M GND/S GND
M GND/CYL GND
M GND/CAP GND
A
B
C
D
E
F
1
2
3
4
5
6
7
8
12
13
14
15
16

IC6512

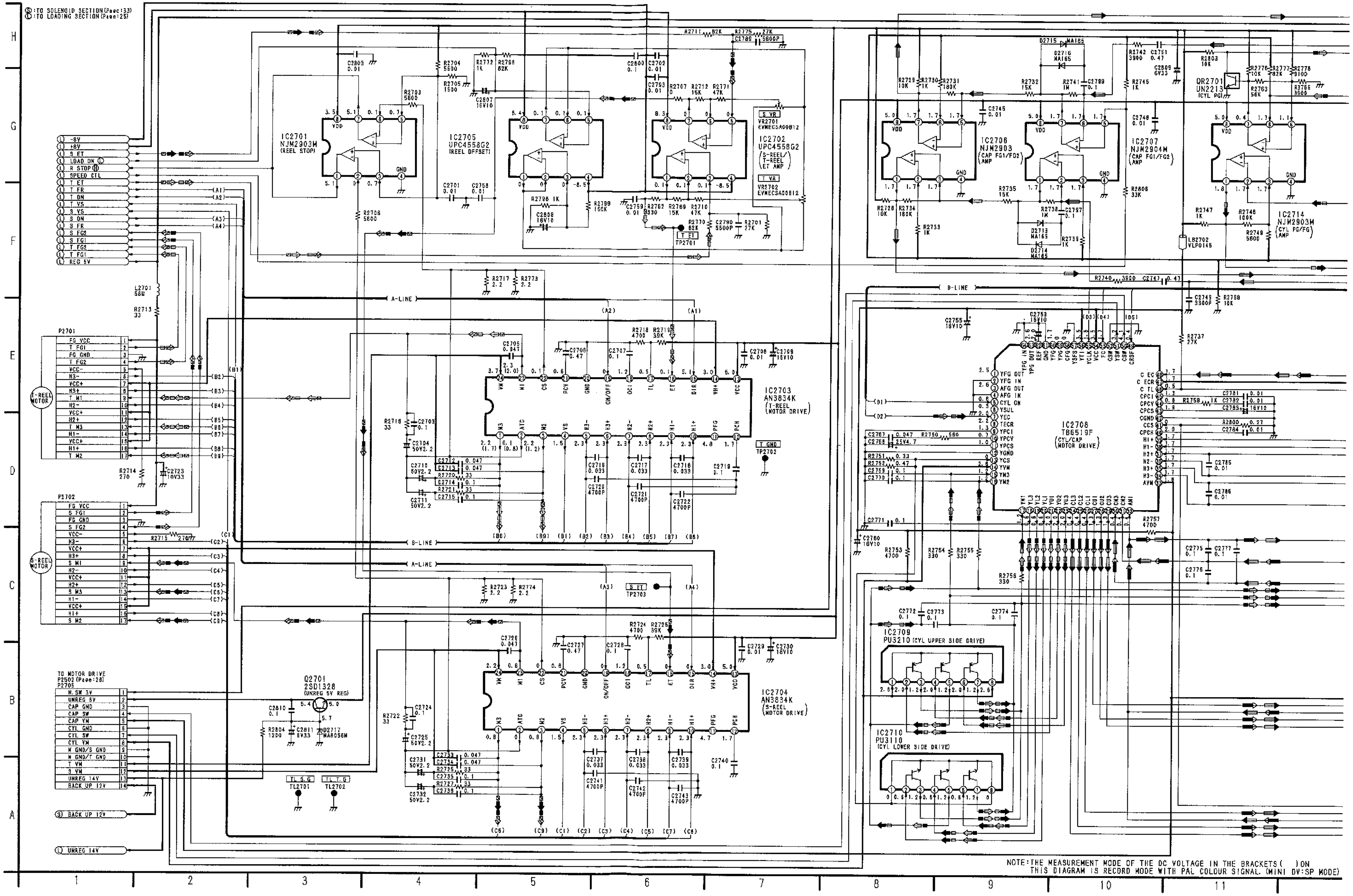
PIN NO	I/O	SIGNAL	PIN NO	I/O	SIGNAL
1	0	SLPR DATA 0	17	-	NC
2	I	SLPR DATA I	18	0	CLEANE Ⓗ
3	I	SLPR CLOCK	19	0	PINCH OFF Ⓗ
4	I	CS	20	0	PINCH ON Ⓗ
5	I	VCC	21	0	S BK OFF Ⓗ
6	I	S	22	0	S BK ON Ⓗ
7		GND	23	0	T BK OFF Ⓗ
8	-	NC	24	0	T BK ON Ⓗ
9	I	NC	25	I	NC
10	I	NC	26	I	NC
11	I	NC	27	I	NC
12	0	LIMIT Ⓗ	28	0	TRAY V
13	0	TAPE UNLOAD	29	0	LIMIT Ⓗ
14	0	TAPE LOAD	30	0	TRAY M -
15	0	TAPE. V. CHG	31	0	TRAY M +
16		GND	32	0	TRAY M +

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

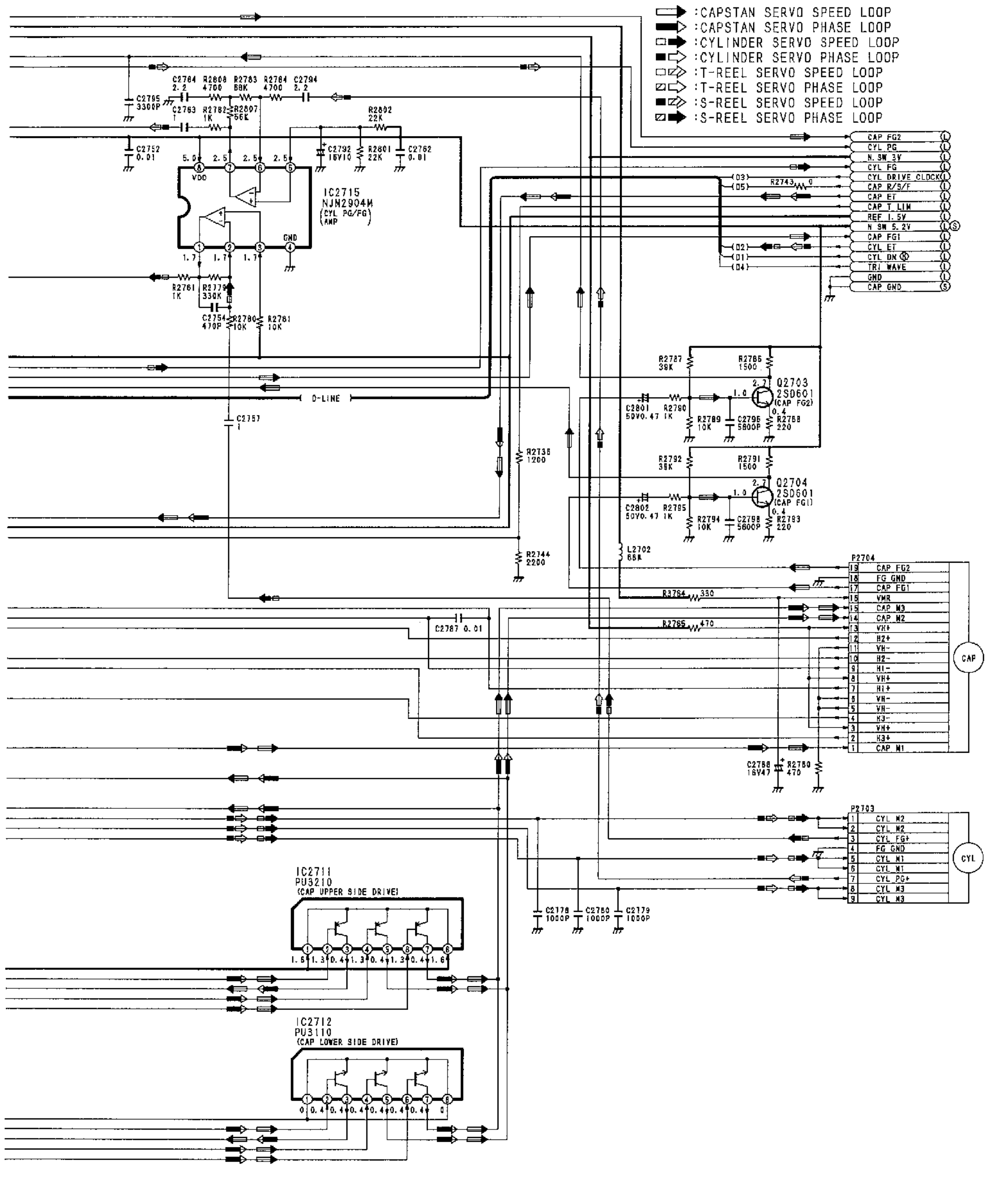
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-11. DRIVE SECTION IN MECHANISM DRIVE SCHEMATIC DIAGRAM


Ⓢ:TO SOLENOID SECTION(Page:33)
Ⓛ:TO LOADING SECTION(Page:25)
-8V
+8V
S ET
LOAD ON Ⓛ
R STOP Ⓢ
SPEED CTL
T ET
T FR
T ON
T VS
S VS
S ON
S FR
S FG2
S FG1
T FG2
T FG1
REG 5V
L2701 68U
R2713 33
P2701
FG VCC
T FG1
FG GND
T FG2
VCC-
H3-
VCC+
H3+
T M1
H2-
VCC+
H2+
T M3
H1-
VCC+
H1+
T M2
T-REEL MOTOR
R2714 270
C2723 10V33
P2702
FG VCC
S FG1
FG GND
S FG2
VCC-
H3-
VCC+
H3+
S M1
H2-
VCC+
H2+
S M3
H1-
VCC+
H1+
S M2
S-REEL MOTOR
R2715 270
TO MOTOR DRIVE
P2502 (Page:28)
P2705
M SW 3V
UNREG 5V
CAP GND
CAP SW
CAP VM
CYL GND
CYL SW
CYL VM
M GND/S GND
M GND/T GND
T VM
S VM
UNREG 14V
BACK UP 12V
BACK UP 12V
UNREG 14V
IC2701
NJM2903M
(REEL STOP)
IC2705
UPC4558G2
(REEL OFFSET)
IC2702
UPC4558G2
(S-REEL/T-REEL ET AMP)
S VR
VR2701
EVMECSA00B12
T VR
VR2702
EVMECSA00B12
T ET
TP2701
A-LINE
B-LINE
IC2703
AN3834K
(T-REEL MOTOR DRIVE)
T GND
TP2702
S ET
TP2703
IC2704
AN3834K
(S-REEL MOTOR DRIVE)
Q2701
2SD1328
(UNREG 5V REG)
D2717
MA8056M
TL S.G
TL2701
TL T.G
TL2702
IC2706
NJM2903
(CAP FG1/FG2 AMP)
IC2707
NJM2904M
(CAP FG1/FG2 AMP)
QR2701
UN2213
(CYL PG)
IC2714
NJM2903M
(CYL PG/FG AMP)
LB2702
VLF0145
IC2708
TB6519F
(CYL/CAP MOTOR DRIVE)
IC2709
PU3210 (CYL UPPER SIDE DRIVE)
IC2710
PU3110
(CYL LOWER SIDE DRIVE)
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

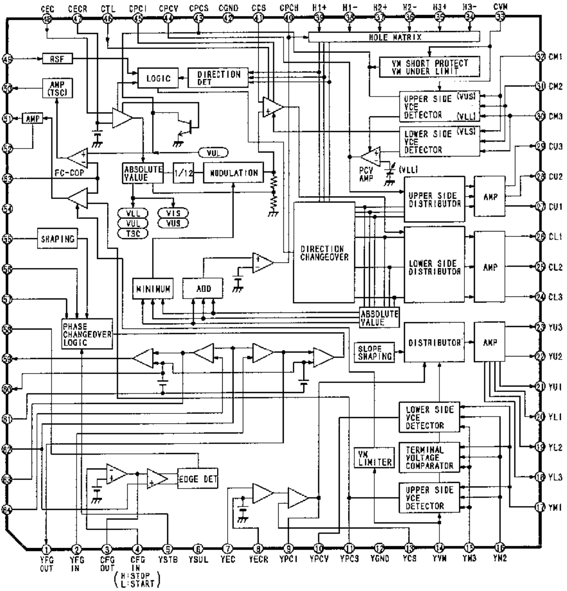
NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)


:CAPSTAN SERVO SPEED LOOP
:CAPSTAN SERVO PHASE LOOP
:CYLINDER SERVO SPEED LOOP
:CYLINDER SERVO PHASE LOOP
:T-REEL SERVO SPEED LOOP
:T-REEL SERVO PHASE LOOP
:S-REEL SERVO SPEED LOOP
:S-REEL SERVO PHASE LOOP
C2795 3300P
C2764 2.2
R2808 4700
R2783 68K
R2784 4700
C2794 2.2
C2763 1
R2782 1K
R2807 56K
R2802 22K
C2752 0.01
C2792 16V10
R2801 22K
C2762 0.01
5.0
2.5
2.5
2.5
VDD
IC2715
NJN2904M
(CYL PG/FG AMP)
GND
1.7
1.7
1.7
R2761 1K
R2779 330K
C2754 470P
R2780 10K
R2781 10K
D-LINE
C2757 1
(D3)
(D5)
R2743 0
(D2)
(D1)
(D4)
CAP FG2
CYL PG
N.SW 3V
CYL FG
CYL DRIVE CLOCK
CAP R/S/F
CAP ET
CAP T LIM
REF 1.5V
N SW 5.2V
CAP FG1
CYL ET
CYL DN
TRI WAVE
GND
CAP GND
R2787 39K
R2786 1500
Q2703
2SD601
(CAP FG2)
2.7
1.0
0.4
C2801 50V0.47
R2790 1K
R2789 10K
C2796 5600P
R2788 220
R2792 39K
R2791 1500
Q2704
2SD601
(CAP FG1)
2.7
1.0
0.4
C2802 50V0.47
R2795 1K
R2794 10K
C2798 5600P
R2793 220
R2735 1200
R2744 2200
L2702 68μ
R3764 330
R2765 470
C2787 0.01
P2704
19 CAP FG2
18 FG GND
17 CAP FG1
16 VMR
15 CAP M3
14 CAP M2
13 VH+
12 H2+
11 VH-
10 H2-
9 H1-
8 VH+
7 H1+
6 VH-
5 VH-
4 H3-
3 VH+
2 H3+
1 CAP M1
CAP
C2788 16V47
R2750 470
P2703
1 CYL M2
2 CYL M2
3 CYL FG+
4 FG GND
5 CYL M1
6 CYL M1
7 CYL PG+
8 CYL M3
9 CYL M3
CYL
C2778 1000P
C2780 1000P
C2779 1000P
IC2711
PU3210
(CAP UPPER SIDE DRIVE)
1.6
1.3
0.4
1.3
0.4
1.3
0.4
1.6
IC2712
PU3110
(CAP LOWER SIDE DRIVE)
0
0.4
0.4
0.4
0.4
0.4
0.4
0
12
13
14
15
16
17

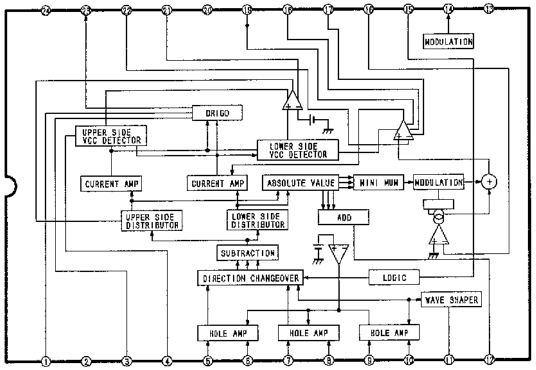
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

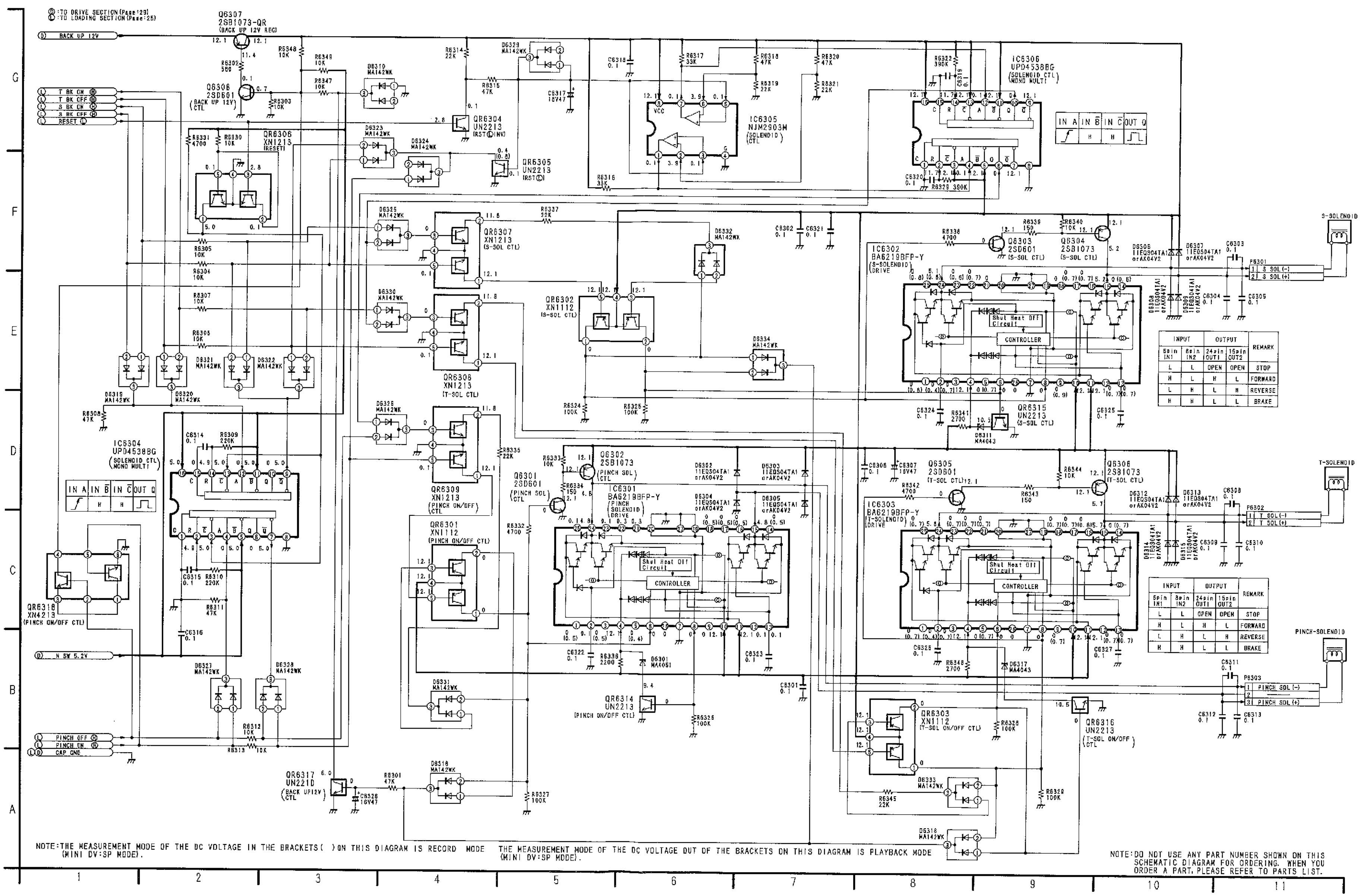
IC2708
TB6519F


CEC
CECR
CTL
CPCI
CPCV
CPCS
CGND
CCS
CPCH
H1+
H1-
H2+
H2-
H3+
H3-
CVM
CRSF
CSW
YSW
GSW
FC
VCC
YCLK
YTI
YSFS
CFG
YPG
YFG
GND
REF
YPG OUT
YPG IN
CM1
CM2
CM3
CU3
CU2
CU1
CL1
CL2
CL3
YU3
YU2
YU1
YL1
YL2
YL3
YM1
YFG OUT
YFG IN
CFG OUT
CFG IN (H:STOP L:START)
YSTB
YSUL
YEC
YECR
YPCI
YPCV
YPCS
YGND
YCS
YVM
YM3
YM2
HOLE MATRIX
RSF
AMP (TSC)
AMP
LOGIC
DIRECTION DET
VM SHORT PROTECT VM UNDER LIMIT
UPPER SIDE VCE DETECTOR
(VUS)
(VLL)
LOWER SIDE VCE DETECTOR
(VLS)
PCV AMP
(VLL)
FC-COP
VUL
ABSOLUTE VALUE
1/12
MODULATION
VLL
VUL
TSC
VIS
VUS
SHAPING
UPPER SIDE DISTRIBUTOR
AMP
DIRECTION CHANGEOVER
LOWER SIDE DISTRIBUTOR
AMP
MINIMUM
ADD
ABSOLUTE VALUE
PHASE CHANGEOVER LOGIC
SLOPE SHAPING
DISTRIBUTOR
AMP
EDGE DET
VM LIMITER
LOWER SIDE VCE DETECTOR
TERMINAL VOLTAGE COMPARATOR
UPPER SIDE VCE DETECTOR

IC2703
IC2704
AN3834K


MODULATION
DRIGO
UPPER SIDE VCC DETECTOR
LOWER SIDE VCC DETECTOR
CURRENT AMP
CURRENT AMP
ABSOLUTE VALUE
MINI MUM
MODULATION
UPPER SIDE DISTRIBUTOR
LOWER SIDE DISTRIBUTOR
ADD
SUBTRACTION
DIRECTION CHANGEOVER
LOGIC
WAVE SHAPER
HOLE AMP
HOLE AMP
HOLE AMP

3-12. SOLENOID SECTION IN MECHANISM DRIVE SCHEMATIC DIAGRAM


Ⓐ:TO DRIVE SECTION(Page 29)
Ⓑ:TO LOADING SECTION(Page 25)
BACK UP 12V
T BK ON
T BK OFF
S BK ON
S BK OFF
RESET
N SW 5.2V
PINCH OFF
PINCH ON
CAP GND
Q6307 2SB1073-QR (BACK UP 12V REG)
Q6308 2SD601 (BACK UP 12V) (CTL
QR6306 XN1213 (RESET)
QR6304 UN2213 (RST INV)
QR6305 UN2213 (RST)
IC6305 NJM2903M (SOLENOID) (CTL
IC6306 UPD4538BG (SOLENOID CTL) (MONO MULTI)
IC6304 UPD4538BG (SOLENOID CTL) (MONO MULTI)
IN A
IN B
IN C
OUT Q
QR6307 XN1213 (S-SOL CTL)
QR6308 XN1213 (T-SOL CTL)
QR6309 XN1213 (PINCH ON/OFF) (CTL
QR6301 XN1112 (PINCH ON/OFF CTL)
QR6302 XN1112 (S-SOL CTL)
QR6318 XN4213 (PINCH ON/OFF CTL)
QR6317 UN221D (BACK UP12V) (CTL
QR6314 UN2213 (PINCH ON/OFF CTL)
QR6315 UN2213 (S-SOL CTL)
QR6316 UN2213 (T-SOL ON/OFF) (CTL
QR6303 XN1112 (T-SOL ON/OFF CTL)
Q6301 2SD601 (PINCH SOL) (CTL
Q6302 2SB1073 (PINCH SOL) (CTL
Q6303 2SD601 (S-SOL CTL)
Q6304 2SB1073 (S-SOL CTL)
Q6305 2SD601 (T-SOL CTL)
Q6306 2SB1073 (T-SOL CTL)
IC6301 BA6219BFP-Y (PINCH SOLENOID) (DRIVE
IC6302 BA6219BFP-Y (S-SOLENOID) (DRIVE
IC6303 BA6219BFP-Y (T-SOLENOID) (DRIVE
Shut Heat Off Circuit
CONTROLLER
D6302–D6316 11EQS04TA1 or AK04V2
MA142WK
MA4043
MA4051
P6301
1 S SOL(-)
2 S SOL(+)
P6302
1 T SOL(-)
2 T SOL(+)
P6303
1 PINCH SOL(-)
2
3 PINCH SOL(+)
S-SOLENOID
T-SOLENOID
PINCH-SOLENOID
A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
10
11

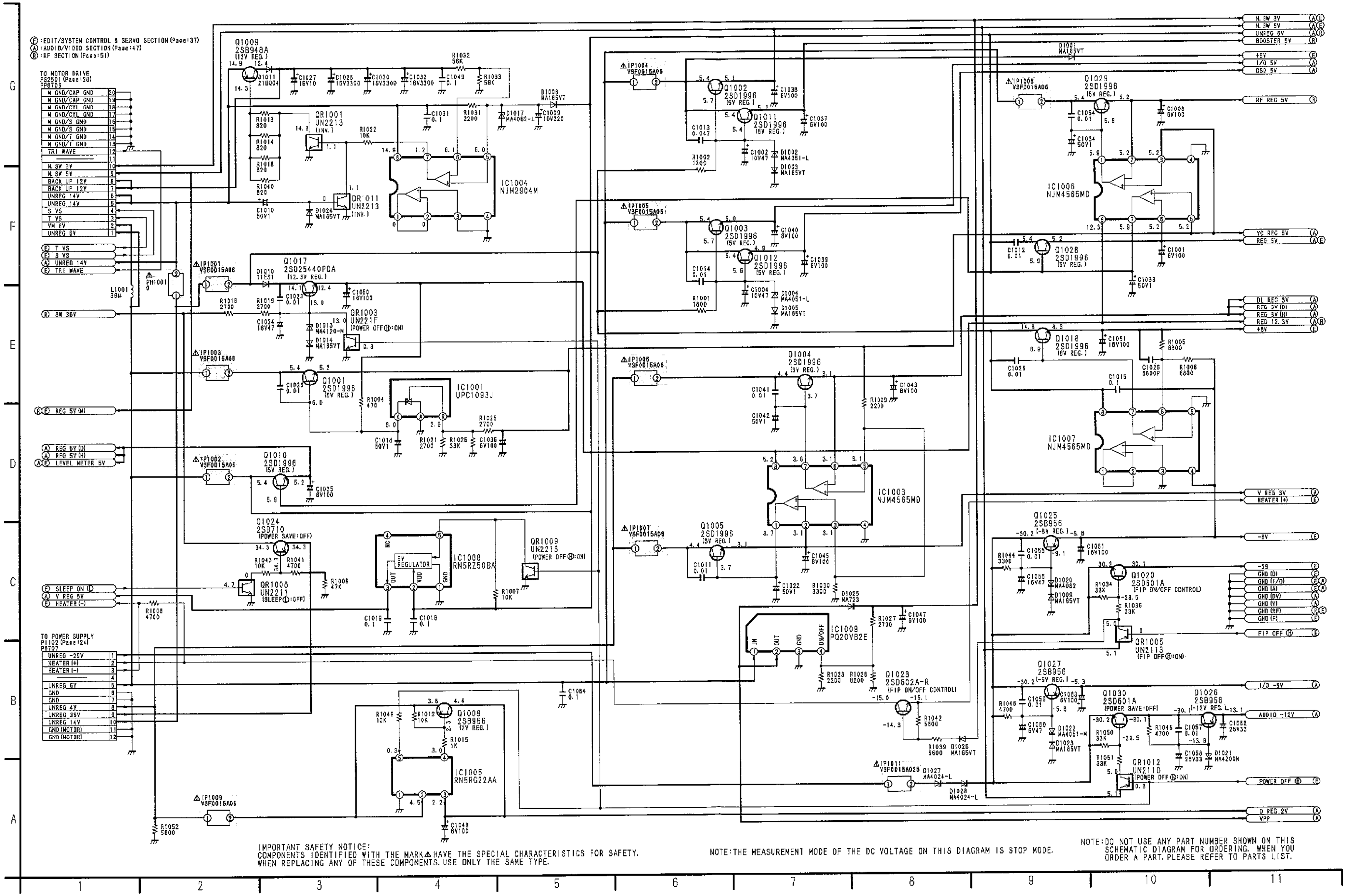
INPUT		OUTPUT		REMARK
6pin IN1	8pin IN2	24pin OUT1	15pin OUT2	
L	L	OPEN	OPEN	STOP
H	L	H	L	FORWARD
L	H	L	H	REVERSE
H	H	L	L	BRAKE

INPUT		OUTPUT		REMARK
6pin IN1	8pin IN2	24pin OUT1	15pin OUT2	
L	L	OPEN	OPEN	STOP
H	L	H	L	FORWARD
L	H	L	H	REVERSE
H	H	L	L	BRAKE

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE (MINI DV:SP MODE).
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE (MINI DV:SP MODE).

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-13. POWER SECTION IN MAIN SCHEMATIC DIAGRAM


Ⓔ:EDIT/SYSTEM CONTROL & SERVO SECTION (Page:37)
Ⓐ:AUDIO/VIDEO SECTION (Page:47)
Ⓡ:RF SECTION (Page:51)
TO MOTOR DRIVE
PS2501 (Page:28)
PP8706
M GND/CAP GND 20
M GND/CAP GND 19
M GND/CYL GND 18
M GND/CYL GND 17
M GND/S GND 16
M GND/S GND 15
M GND/T GND 14
M GND/T GND 13
TRI WAVE 12
11
N. SW 3V 10
N. SW 5V 9
BACK UP 12V 8
BACK UP 12V 7
UNREG 14V 6
UNREG 14V 5
S VS 4
T VS 3
VM 6V 2
UNREG 6V 1
Ⓔ T VS
Ⓔ S VS
Ⓐ UNREG 14V
Ⓔ TRI WAVE
Ⓡ SW 36V
ⓇⒺ REG 5V (M)
Ⓐ REG 5V (D)
Ⓐ REG 5V (H)
ⒶⒺ LEVEL METER 5V
Ⓔ SLEEP ON Ⓛ
Ⓐ V REG 5V
Ⓔ HEATER (-)
TO POWER SUPPLY
P1102 (Page:24)
P8707
UNREG -29V 1
HEATER (+) 2
HEATER (-) 3
4
UNREG 6V 5
GND 6
GND 7
UNREG 4V 8
UNREG 36V 9
UNREG 14V 10
GND (MOTOR) 11
GND (MOTOR) 12
N. SW 3V ⒶⒺ
N. SW 5V ⒶⒺ
UNREG 6V ⒶⓇ
BOOSTER 5V Ⓡ
+5V Ⓔ
I/O 5V Ⓐ
OSD 5V Ⓐ
RF REG 5V Ⓡ
YC REG 5V Ⓐ
REG 5V ⒶⒺ
DL REG 3V Ⓐ
REG 3V (D) Ⓐ
REG 3V (H) Ⓐ
REG 12.3V ⒶⓇ
+8V Ⓔ
V REG 3V Ⓐ
HEATER (+) Ⓔ
-8V Ⓔ
-29 Ⓔ
GND (D) Ⓔ
GND (I/O) ⒺⒶ
GND (A) ⒺⒶ
GND (DV) Ⓐ
GND (V) Ⓐ
GND (RF) ⓇⒺ
GND (F) Ⓔ
FIP OFF Ⓗ Ⓔ
I/O -5V Ⓐ
AUDIO -12V Ⓐ
POWER OFF Ⓗ Ⓔ
D REG 2V Ⓐ
VPP Ⓐ
Q1009 2SB948A (12V REG.)
D1011 21DQ04
QR1001 UN2213 (INV.)
QR1011 UN2213 (INV.)
D1024 MA165VT
IC1004 NJM2904M
D1008 MA165VT
D1017 MA4062-L
L1001 39μ
PH1001 0
IP1001 VSF0015A06
IP1002 VSF0015A06
IP1003 VSF0015A06
IP1004 VSF0015A06
IP1005 VSF0015A06
IP1006 VSF0015A06
IP1007 VSF0015A06
IP1008 VSF0015A06
IP1009 VSF0015A06
IP1011 VSF0015A025
D1010 11ES1
Q1017 2SD2544OPQA (12.3V REG.)
QR1003 UN221F (POWER OFF Ⓗ:ON)
D1013 MA4120-N
D1014 MA165VT
Q1001 2SD1996 (5V REG.)
IC1001 UPC1093J
Q1010 2SD1996 (5V REG.)
Q1024 2SB710 (POWER SAVE:OFF)
QR1008 UN2211 (SLEEP Ⓛ:OFF)
IC1008 RN5RZ50BA
5V REGULATOR
QR1009 UN2213 (POWER OFF Ⓗ:ON)
Q1008 2SB956 (12V REG.)
IC1005 RN5RG22AA
Q1002 2SD1996 (5V REG.)
Q1011 2SD1996 (5V REG.)
D1002 MA4051-L
D1003 MA165VT
Q1003 2SD1996 (5V REG.)
Q1012 2SD1996 (5V REG.)
D1004 MA4051-L
D1005 MA165VT
D1004 2SD1996 (3V REG.)
IC1003 NJM4565MD
Q1005 2SD1996 (3V REG.)
D1025 MA723
IC1009 PQ20VB2E
Q1023 2SD602A-R (FIP ON/OFF CONTROL)
D1026 MA165VT
D1027 MA4024-L
D1028 MA4024-L
D1001 MA165VT
Q1029 2SD1996 (5V REG.)
IC1006 NJM4565MD
Q1028 2SD1996 (5V REG.)
Q1018 2SD1996 (8V REG.)
IC1007 NJM4565MD
Q1025 2SB956 (-8V REG.)
D1020 MA4082
D1006 MA165VT
Q1020 2SD601A (FIP ON/OFF CONTROL)
QR1005 UN2113 (FIP OFF Ⓗ:ON)
Q1027 2SB956 (-5V REG.)
D1022 MA4051-M
D1023 MA165VT
Q1030 2SD601A (POWER SAVE:OFF)
Q1026 2SB956 (-12V REG.)
D1021 MA4200N
QR1012 UN2110 (POWER OFF Ⓗ:ON)
A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
10
11

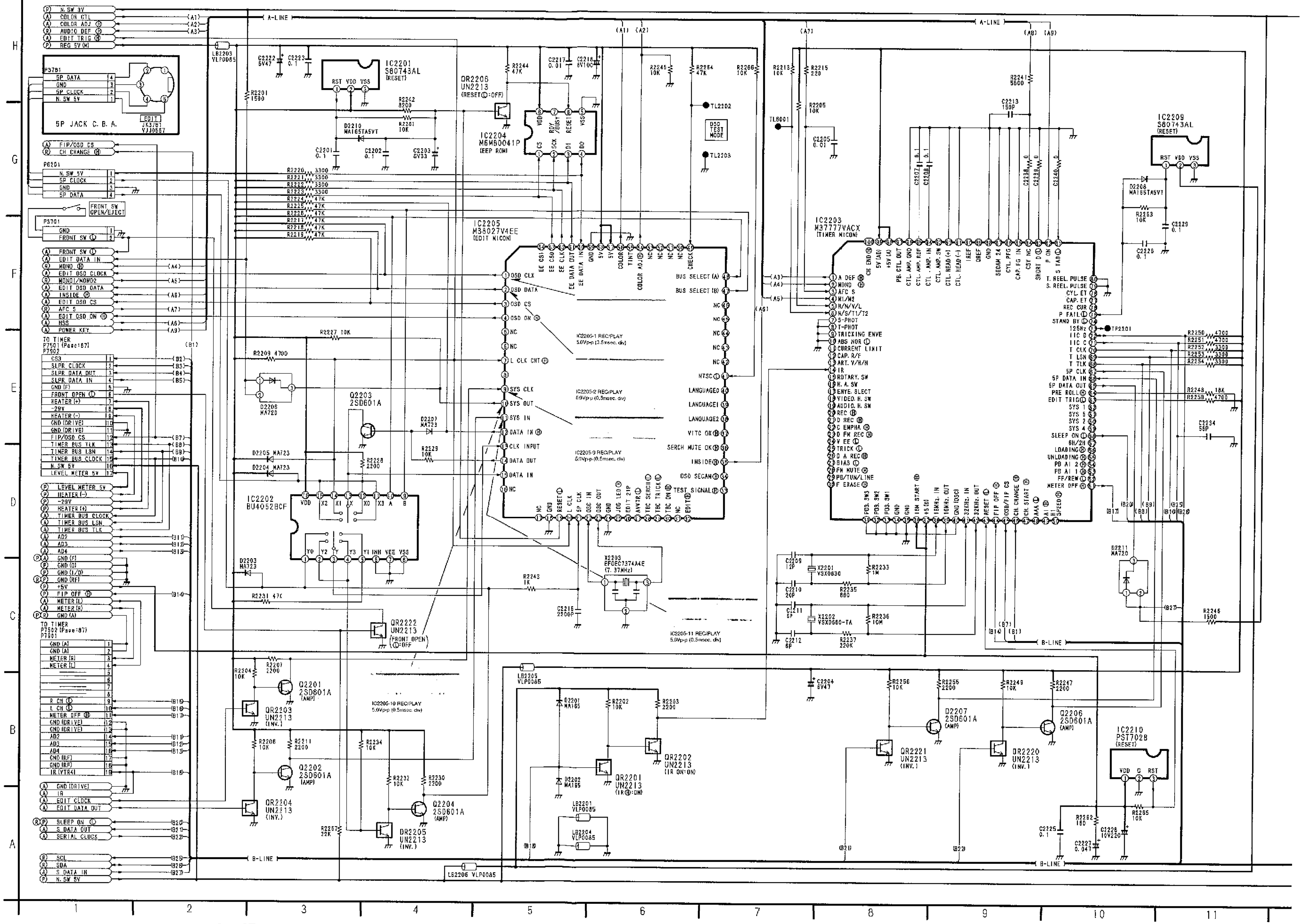
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

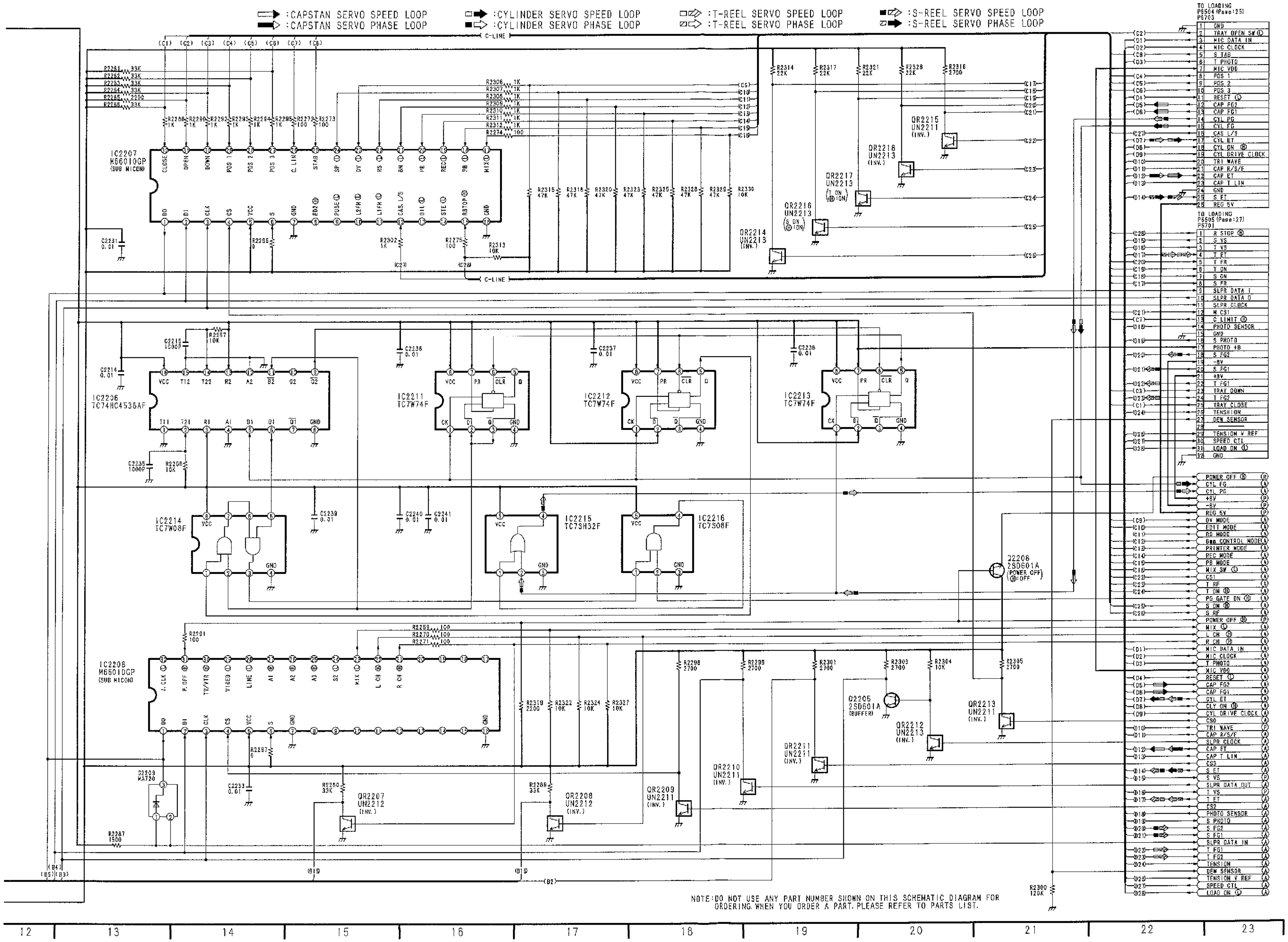
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-14. EDIT/SYSTEM CONTROL & SERVO SECTION IN MAIN, 5P JACK SCHEMATIC DIAGRAMS

Ⓟ :POWER SECTION (Page:35) Ⓡ :RF SECTION (Page:51) Ⓐ :AUDIO/VIDEO SECTION (Page:47)



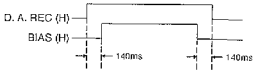
IC2201 S80743AL (RESET)
IC2204 M6M80041P (EEP ROM)
QR2206 UN2213 (RESET①:OFF)
IC2205 M38027V4EE (EDIT MICON)
IC2203 M37777VACX (TIMER MICON)
IC2209 S80743AL (RESET)
IC2202 BU4052BCF
Q2203 2SD601A
QR2222 UN2213 (FRONT OPEN) (①:OFF)
Q2201 2SD601A (AMP)
QR2203 UN2213 (INV.)
Q2202 2SD601A (AMP)
QR2204 UN2213 (INV.)
Q2204 2SD601A (AMP)
QR2205 UN2213 (INV.)
QR2202 UN2213 (IR ON①ON)
QR2201 UN2213 (IR①ON)
Q2207 2SD601A (AMP)
QR2221 UN2213 (INV.)
Q2206 2SD601A (AMP)
QR2220 UN2213 (INV.)
IC2210 PST702B (RESET)
X2203 EFOEC3774A4E (7.37MHz)
X2201 VSX0830
X2202 VSX0560-TA
5P JACK C.B.A.
EDIT JK3781 VJJ0567
P3781
P6201
P3701
FRONT SW OPEN/EJECT
TO TIMER P7501 (Page:87) P7502
TO TIMER P7502 (Page:87) P7801
A-LINE
B-LINE
OSD TEST MODE


:CAPSTAN SERVO SPEED LOOP
:CAPSTAN SERVO PHASE LOOP
:CYLINDER SERVO SPEED LOOP
:CYLINDER SERVO PHASE LOOP
:T-REEL SERVO SPEED LOOP
:T-REEL SERVO PHASE LOOP
:S-REEL SERVO SPEED LOOP
:S-REEL SERVO PHASE LOOP
C-LINE
IC2207
M6601DGP
(SUB MICON)
CLOSE
OPEN
DOWN
POS 1
POS 2
POS 3
C.LIN
STAB
SP
DV
RS
9N
PB
REC
PB
MIX
DO
DI
CLK
CS
VCC
S
GND
EO2
PUSE
L8FH
L1FH
CAS.L/S
DIL
STE
RSTOP
GND
R2281 33K
R2282 33K
R2283 33K
R2284 33K
R2285 2200
R2286 33K
R2306 1K
R2307 1K
R2308 1K
R2309 1K
R2310 1K
R2311 1K
R2312 1K
R2274 100
R2315 47K
R2318 47K
R2320 47K
R2323 47K
R2325 47K
R2328 47K
R2329 47K
R2330 10K
R2313 10K
R2275 100
R2302 1K
R2296 0
C2231 0.01
R2314 22K
R2317 22K
R2321 22K
R2328 22K
R2316 2700
QR2214 UN2213 (INV.)
QR2216 UN2213 (S ON) (H:ON)
QR2217 UN2213 (T ON) (H:ON)
QR2218 UN2213 (INV.)
QR2215 UN2211 (INV.)
IC2206
TC74HC4538AF
VCC T12 T22 R2 A2 B2 Q2 Q2
T11 T21 R1 A1 B1 Q1 Q1 GND
C2214 0.01
C2215 1000P
R2257 10K
C2235 1000P
R2258 10K
C2236 0.01
C2237 0.01
C2238 0.01
IC2211 TC7W74F
IC2212 TC7W74F
IC2213 TC7W74F
VCC PR CLR Q
CK D Q GND
IC2214 TC7W08F
IC2215 TC7SH32F
IC2216 TC7S08F
C2239 0.01
C2240 0.01
C2241 0.01
Q2206 2SD601A (POWER OFF) (H:OFF)
IC2208
M6601DGP
(SUB MICON)
J.CLK
P.OFF
TV/VTR
VIDEO
LINE
A1
A2
A3
S2
MIX
L CH
R CH
R2281 100
R2269 100
R2270 100
R2271 100
R2319 2200
R2322 10K
R2324 10K
R2327 10K
R2297 0
C2233 0.01
D2209 MA720
R2287 1500
R2250 33K
QR2207 UN2212 (INV.)
R2269 33K
QR2208 UN2212 (INV.)
R2298 2700
QR2209 UN2211 (INV.)
R2299 2700
QR2210 UN2211 (INV.)
R2301 2700
QR2211 UN2211 (INV.)
R2303 2700
Q2205 2SD601A (BUFFER)
R2304 10K
QR2212 UN2213 (INV.)
R2395 2700
QR2213 UN2211 (INV.)
R2300 120K
TO LOADING
P6504 (Page:25)
P6703
1 GND
2 TRAY OPEN SW Ⓛ
3 MIC DATA IN
4 MIC CLOCK
5 S TAB
6 T PHOTO
7 MIC VDD
8 POS 1
9 POS 2
10 POS 3
11 RESET Ⓛ
12 CAP FG2
13 CAP FG1
14 CYL PG
15 CYL FG
16 CAS L/S
17 CYL ET
18 CYL ON Ⓗ
19 CYL DRIVE CLOCK
20 TRI WAVE
21 CAP R/S/F
22 CAP ET
23 CAP T LIN
24 GND
25 S ET
26 REG 5V
TO LOADING
P6505 (Page:27)
P6701
1 R STOP Ⓗ
2 S VS
3 T VS
4 T ET
5 T FR
6 T ON
7 S ON
8 S FR
9 SLPR DATA I
10 SLPR DATA O
11 SLPR CLOCK
12 M CS1
13 C LIMIT Ⓗ
14 PHOTO SENSOR
15 GND
16 S PHOTO
17 PHOTO +B
18 S FG2
19 -8V
20 S FG1
21 +8V
22 T FG1
23 TRAY DOWN
24 T FG2
25 TRAY CLOSE
26 TENSHION
27 DEW SENSOR
28
29 TENSION V REF
30 SPEED CTL
31 LOAD ON Ⓛ
32 GND
POWER OFF Ⓗ Ⓡ
CYL FG Ⓐ
CYL PG Ⓐ
+8V Ⓟ
-8V Ⓟ
REG 5V Ⓟ
DV MODE Ⓐ
EDIT MODE Ⓐ
RS MODE Ⓐ
8mm CONTROL MODE Ⓐ
PRINTER MODE Ⓐ
REC MODE Ⓐ
PB MODE Ⓐ
MIX SW Ⓛ Ⓐ
CS1 Ⓐ
T RF Ⓐ
T ON Ⓗ Ⓐ
PG GATE ON Ⓗ Ⓐ
S ON Ⓗ Ⓐ
S RF Ⓐ
POWER OFF Ⓗ Ⓟ
MIX Ⓛ Ⓐ
L CH Ⓗ Ⓐ
R CH Ⓗ Ⓐ
MIC DATA IN Ⓐ
MIC CLOCK Ⓐ
T PHOTO Ⓐ
MIC VDD Ⓐ
RESET Ⓛ Ⓐ
CAP FG2 Ⓐ
CAP FG1 Ⓐ
CYL ET Ⓐ
CLY ON Ⓗ Ⓐ
CYL DRIVE CLOCK Ⓐ
CS0 Ⓐ
TRI WAVE Ⓟ
CAP R/S/F Ⓐ
SLPR CLOCK Ⓐ
CAP ET Ⓐ
CAP T LIN Ⓐ
CS3 Ⓐ
S ET Ⓐ
S VS Ⓟ
SLPR DATA OUT Ⓐ
T VS Ⓟ
T ET Ⓐ
CS2 Ⓐ
PHOTO SENSOR Ⓐ
S PHOTO Ⓐ
S FG2 Ⓐ
S FG1 Ⓐ
SLPR DATA IN Ⓐ
T FG1 Ⓐ
T FG2 Ⓐ
TENSION Ⓐ
DEW SENSOR Ⓐ
TENSION V REF Ⓐ
SPEED CTL Ⓐ
LOAD ON Ⓛ Ⓐ
12
13
14
15
16
17
18
19
20
21
22
23

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IC2203 (M37777VACX): TIMER MICON

<table>
<tr><th>PIN. NO.</th><th>SIGNAL NAME</th><th>I/O</th><th>EXPLANATION</th></tr>
<tr><td>1</td><td>AUDIO. DEF Ⓗ</td><td>O</td><td>DECODER IC reset signal</td></tr>
<tr><td>2</td><td>FORCE MONI Ⓗ</td><td>O</td><td>U.K. Multi: Audio Detects Auto/off switch</td></tr>
<tr><td>3</td><td>AFC (S)</td><td>I</td><td>AFC S CURVE</td></tr>
<tr><td>4</td><td>No/M1/Bil/M2/Ste</td><td>I</td><td>Audio mode detection for display on the OSD
<table>
<tr><th>INPUT VOLTAGE</th><th>DISPLAY</th></tr>
<tr><td>MORE THAN 4.2V</td><td>NO DISPLAY</td></tr>
<tr><td>3.0 ~ 4.2</td><td>MONO1</td></tr>
<tr><td>2.0 ~ 3.0</td><td>BILINGUAL</td></tr>
<tr><td>0.8 ~ 2.0</td><td>MONO 1+2</td></tr>
<tr><td>LESS THAN 0.8V</td><td>STEREO</td></tr>
</table></td></tr>
<tr><td>5</td><td>L6/U6/U4/U2/U2L</td><td>I</td><td>CYLINDER (HIFI/NORMAL) SELECT
<table>
<tr><th>INPUT VOLTAGE</th><th>CYLINDER</th><th>HIFI/NORMAL</th></tr>
<tr><td>MORE THAN 4.2V</td><td>LDD 6CH</td><td>HIFI</td></tr>
<tr><td>3.0 ~ 4.2</td><td>UDD 6CH</td><td>HIFI</td></tr>
<tr><td>2.0 ~ 3.0</td><td>UDD 2CH (NO LP)</td><td>NORMAL</td></tr>
<tr><td>0.8 ~ 2.0</td><td>UDD 2CH (LP)</td><td>NORMAL</td></tr>
<tr><td>LESS THAN 0.8V</td><td>UDD 4CH</td><td>NORMAL</td></tr>
</table></td></tr>
<tr><td>6</td><td>Nor/Ser/T1/T2</td><td>I</td><td>MODE SELECT
<table>
<tr><th>INPUT VOLTAGE</th><th>MODE</th></tr>
<tr><td>MORE THAN 4.0V</td><td>NORMAL</td></tr>
<tr><td>2.5 ~ 4.0</td><td>SERVICE</td></tr>
<tr><td>1.0 ~ 2.5</td><td>TEST 2</td></tr>
<tr><td>LESS THAN 1.0V</td><td>TEST 1</td></tr>
</table></td></tr>
<tr><td>7</td><td>S-PHOT</td><td>I</td><td>Tape Supply Photo Sensor Detect</td></tr>
<tr><td>8</td><td>T-PHOT</td><td>I</td><td>Tape Take-up Phote Sensor Detect</td></tr>
<tr><td>9</td><td>TRACKING ENVE</td><td>O</td><td>Auto Tracking/Video Enve Detect Input for CVC</td></tr>
<tr><td>10</td><td>ABS. NORM Ⓛ</td><td>I</td><td>Lower output level Detect of FM audio</td></tr>
<tr><td>11</td><td>CURRENT. LIMIT</td><td>O</td><td></td></tr>
<tr><td>12</td><td>REC CUR</td><td>O</td><td>REC CURR CTL for REC AI (EE)/ Picture VR Value out for P.B. AI (VV)</td></tr>
<tr><td>13</td><td>ART. V/H/N</td><td>O</td><td></td></tr>
<tr><td>14</td><td>REMOCON</td><td>I</td><td>REMOTE/DIGIRAL RINK INPUT</td></tr>
<tr><td>15</td><td>ROTARY. SW</td><td>O</td><td>ROTARY SW</td></tr>
<tr><td>16</td><td>H.A. SW</td><td>O</td><td>HEAD AMP SW</td></tr>
<tr><td>17</td><td>ENVE. SLECT</td><td>I</td><td>ENVELOPE SELECT</td></tr>
<tr><td>18</td><td>VIDEO. H. SW</td><td>O</td><td>VIDEO HEAD SW</td></tr>
<tr><td>19</td><td>AUDIO. H. SW</td><td>O</td><td>AUDIO HEAD SW</td></tr>
<tr><td>20</td><td>REC Ⓗ</td><td>O</td><td>REC/P.B Select of video/Audio Circuit
REC Mode: H</td></tr>
<tr><td>21</td><td>D. REC Ⓗ</td><td>O</td><td>Video Rec Curr Timing (H. SW Sync.)</td></tr>
<tr><td>22</td><td>C. EMPHA Ⓗ</td><td>O</td><td>Video/FM Audio Rec. Curr Up (H. SW Sync)</td></tr>
<tr><td>23</td><td>D. FM. REC Ⓗ</td><td>O</td><td>FM Audio Rec Curr Timing (H. SW Sync.)</td></tr>
<tr><td>24</td><td>VIDEO. EE Ⓛ</td><td>O</td><td>Video EE/VV Select (H SW Sync.)
EE: L, VV: H</td></tr>
<tr><td>25</td><td>TRICK Ⓛ</td><td>O</td><td>Trick Plag Mode Output Except Std tape run in
VV: L</td></tr>
</table>

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
26	D.A. REC Ⓗ	O	Linear Audio Rec Timingh H Output at timing of BIAS (H) At begining of REC, Set BIAS (H) at 140msec. later of D.A. REC (H) set. At end of REC, release BIAS (H) at 140msec. former of D.A. REC (H) reset 
27	BIAS Ⓛ	O	Linear Audio BIAS OSC SW At Linear Audio Rec, H/L output at timing of D.A. REC (H)
28	FM. MUTE Ⓗ	O	Audio Mute Output Power off, Head cleaning, Timer stand-by, VPS/PDC stand-by: H In VV mode, Except std tape run: H Former and later at EE/VV switch
29	PB/TUN/LINE	O	Normal Audio Circuit Select Normal Audio P.B: H Normal Audio Rec/LINE mode: L Normal Audio Rec/TUNER mode: M
30	FULL. ERASE Ⓗ	O	FE Head OSC SW
31	POS. SW3	I	Mechanical Position Input
32	POS. SW2	I	
33	POS. SW1	I	
34	GND	—	—
35	GND	—	—
36	16M. START Ⓗ	I	16 MHz START Hight
37	5V (D)	I	5V (D)
38	16MHz. IN	I	16 MHz IN
39	16MHz. OUT	O	16 MHz OUT
40	GND (OSC)	I	—
41	32KHz. IN	O	32 kHz IN
42	32KHZ. OUT	I	32 kHz OUT
43	RESET Ⓛ	O	RESET Ⓛ
44	FIP Ⓛ	I	FIP On/Off Select
45	FIP/OSD CS	O	FIP Driver/OSD Micon chip Select At Timing of Data transmission to FIP driver: L At Timing of Data transmission to OSD Micon: H
46	CH CHANGE Ⓗ	O	Varing edge output of channel (H)
47	CH START Ⓗ	O	Audio Carrier Auto Det start Edge output at Tuner preset
48	AAA OFF Ⓗ	O	Output during audio IC auto adj.
49	AI MES Ⓗ	O	Output during AI REC measurement (Fix carrier output)
50	HALF WAVE Ⓗ	O	Capstan Driver Full Wave/Half Wave select
51	P. OFF Ⓗ	O	Output during Power Off H: at Power off, Timer stand-by, etc L: at Head cleaning, Timer confirmation, VPS/PDC stand-by, ACS
52	FF/REW Ⓛ	O	CTL signal Filter/Switch at FF/RES
53	PB AI1 Ⓗ	O	PB AI CONTROL
54	PB AI2 Ⓗ	O	PB AI CONTROL
55	UNLOADING Ⓗ	O	LOADING MOTOR CONTROL
56	LOADING Ⓗ	O	

PIN. NO.	SIGNAL NAME	I/C	EXPLANATION
57	SP Ⓗ	O	TAPE RUN SPEED OUTPUT NTSC2H: H PAL3H: H
58	SLEEP Ⓛ	O	Super Power Save Mode Set Output (L)
59	PAL-I/BG/DK	O	Broadcast System Output for video circuit control
60	SECAM/PAL	O	Broadcast System Output for video circuit control
61	NTSC Ⓛ	O	Broadcast System Output for video circuit control
62	PAL/MESECAM	O	Broadcast System Output for video circuit control
63	EDITTRIG Ⓛ	I/O	Synchronizing Edit Control
64	PREROLL Ⓗ	I/O	
65	5P/T2. DATA. OUT	O	Edit 5P/Serial Communication for Test
66	5P/T2. DATA. IN	I	Edit 5P/Serial Communication for Test
67	5P/T2. CLOCK	O	Edit 5P/Serial Communication for Test
68	T-BUS/IC. OUT	O	OSD Micon/FIP Driver Serial Communication
69	T-BUS/IC. IN	I	OSD Micon/FIP Driver Serial Communication
70	T-BUS/IC. CLK	O	OSD Micon/FIP Driver Serial Communication
71	IIC. CLOCK	O	Tuner/FM Audio IC Serial Communication
72	IIC. DATA	I/O	Tuner/FM Audio IC Serial Communication
73	125Hz	O	Int. OSC Output for Main Clock Adj.
74	STANDBY Ⓛ	O	Display Output at VTR Stand-by
75	POWER FAIL Ⓛ	I	Power Stoppage Detect.

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
76	CAP. R/F	O	CAPSTAN REVERSE Ⓗ/FORWARD Ⓛ
77	CAP. ET	O	CAPSTAN ERROR TORQUE
78	CYL. ET	O	CYLINDER ERROR TORQUE
79	S. REEL. PULSE	I	Pulse Input from Real Sensor
80	T. REEL. PULSE	I	Pulse Input from Real Sensor
81	STAB Ⓛ	I	Safety Tab Detect Exist: L, Non: H
82	POWER KEY Ⓗ	I	Main Power ON/OFF Key Input
83	SHORT DN	I	OSC Trouble Detect of REC Mode
84	C SYNC	I	COLOR SYNC
85	CAP. FG	I	CAPSTAN FG
86	CYL. PFG	I	CYLINDER PG/FG
87	SECAM24 Ⓗ	I	26µ/24µ Head Select Input H: 24µ
88	GND	—	—
89	OREF	O	REFERENCE OUT
90	IREF	I	REFERENCE IN
91	CTL. HEAD (−)	I	CONTROL HEAD (−)
92	CTL. HEAD (+)	I	CONTROL HEAD (+)
93	CTL. AMP. SW	O	CONTROL AMP. SW
94	CTL. AMP. IN	I	CONTROL AMP. IN
95	CTL. AMP. REF	I	CONTROL AMP. REFERENCE
96	CTL. AMP. GND	—	CONTROL AMP. GND
97	PB. CTL. OUT	O	PLAYBACK CONTROL OUT
98	5V (A)	I	5V (A)
99	5V (AD)	I	5V (AD)
100	CH END Ⓗ	I	Audio Carrier Auto Detect Completion Input at Tuner Preset

IC2205 (M38027V4EE): EDIT MICON

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
1	P62	O	OSD CLK
2	P61	O	OSD DATA
3	P60	O	OSD CS
4	P57/INT3	O	OSD ON Ⓗ
5	P56/PWM	O	NC
6	P55/CNTR1	O	NC
7	P54/CNTR0	I	L CLK CNT Ⓗ
8	P53/Srdy2	O	NC
9	P52/SCLK2	I	SYS CLK
10	P51/SOUT2	O	SYS OUT
11	P50/SIN2	I	SYS IN
12	P47/Srdy1	O	DATA INH
13	P46/CLK1	I	CLK INPUT
14	P45/TXD	O	DATA OUT
15	P44/RXD	I	DATA IN
16	P43/INT2	O	NC
17	P42/INT1	O	NC
18	CNVss	—	GND
19	RESET	—	RESET Ⓛ
20	P41/INT0	I	L CLK
21	P40/INT4	I	5P CLK
22	Xin	—	OSC IN
23	Xout	—	OSC OUT
24	Vss	—	GND
25	P27	O	NC (JOG LED Ⓗ)
26	P26	O	NC (EDIT21P)
27	P25	O	NC (AVVTR Ⓛ)
28	P24	O	NC (TBC SERCH Ⓛ)
29	P23	O	NC (TBC TRICK Ⓛ)
30	P22	O	NC (TBC ON)
31	P21	O	NC
32	P20	O	NC (EDIT Ⓗ)
33	P17/AD15	O	NC
34	P16/AD14	O	NC
35	P15/AD13	O	INSIDE Ⓗ
36	P14/AD12	O	NC
37	P13/AD11	O	NC
38	P12/AD10	O	NC
39	P11/AD9	O	NC
40	P10/AD8	O	NC
41	P07/AD7	I	NTSC Ⓛ/PAL Ⓗ
42	P06/AD6	O	NC
43	P05/AD5	O	NC
44	P04/AD4	O	NC
45	P03/AD3	O	NC
46	P02/AD2	O	NC
47	P01/AD1	O	BUS SELECT (B)
48	P00/AD0	O	BUS SELECT (A)
49	P37	I	CHECK Ⓛ
50	P36	O	NC
51	P35	O	NC
52	P34	O	NC
53	P33	O	NC
54	P32	O	COLOR ADJ Ⓗ
55	P31/DA2	I	TINT
56	P30/DA1	I	COLOR
57	Vcc	—	5V
58	Vref	—	5V
59	AVss	—	GND
60	P67	I	EE DATA IN
61	P66	O	EE DATA OUT
62	P65	O	EE CLK
63	P64	O	EE CS0
64	P63	I	NC

IC2207 (M66010GP): SUB MICON

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION	PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
1	DO	O	Serial Data Output	17	MIX Ⓛ	I	Audio Mixing Ⓛ
2	DI	I	Serial Data Input	18	PB Ⓛ	I	PLAY BACK Ⓛ
3	CLK	I	Serial clock	19	REC Ⓛ	I	REC Ⓛ
4	CS	I	Chip select	20	PR Ⓛ	I	Preroll Connect Ⓛ
5	VCC	I	VCC	21	8M Ⓛ	I	8mm Connect Ⓛ
6	$\overline{S}$	I	Power ON Ⓛ	22	RS Ⓛ	I	RS232C Connect Ⓛ
7	GND	—	—	23	DV Ⓛ	I	DV Terminal Connect Ⓛ
8	ED2 Ⓗ	I	TV Ⓗ	24	5P Ⓛ	I	5P Terminal Connect Ⓛ
9	MUSE Ⓛ	I	Muse Ⓛ	25	S TAB Ⓛ	I	Safety Tab SW
10	L2FM Ⓛ	I	L2 Full Mode Ⓛ	26	C LIM	I	CURR. Limit
11	L1FM Ⓛ	I	L1 Full Mode Ⓛ	27	P03	I	Position SW3
12	CAS L/S	I	Cassette Detect L cassette Ⓗ/S cassette Ⓛ	28	P02	I	Position SW2
13	BIL Ⓛ	I	Bilingual Ⓛ	29	P01	I	Position SW1
14	STE Ⓛ	I	Stereo Ⓛ	30	DOWN	I	Tray Down Ⓛ
15	RSTOP Ⓛ	I	Reel Driver desfruction detect Input	31	OPEN	I	Tray Open Ⓛ
16	GND	—		32	CLOSE	I	Tray Close Ⓛ

IC2208 (M66010GP): SUB MICON

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION	PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
1	DO	O	Serial Data Output	17	NC	—	—
2	DI	I	Serial Data Input	18	NC	—	—
3	CLK	I	Serial Data Clock	19	NC	—	—
4	CS	I	Chip Select	20	NC	—	—
5	VCC	I	VCC	21	RCH Ⓗ	O	R CH Ⓗ
6	$\overline{S}$	I	Power On Ⓛ	22	LCH Ⓗ	O	L CH Ⓗ
7	GND	—	—	23	MIX Ⓛ	O	Mix Ⓛ
8	NC	—	—	24	S2 Ⓛ	O	S Output Terminal widefull Ⓛ
9	NC	—	—	25	A3 Ⓗ	O	Input Select Ⓗ
10	NC	—	—	26	A2 Ⓗ	O	Input Select Ⓗ
11	NC	—	—	27	A1 Ⓗ	O	Input Select Ⓗ
12	NC	—	—	28	LINE Ⓛ	O	Line Input Select Ⓛ
13	NC	—	—	29	WIDE Ⓛ	O	S Output Terminal widefull Ⓛ
14	NC	—	—	30	TV/VTR Ⓗ	O	TV/VTR Ⓗ
15	NC	—	—	31	P OFF Ⓗ	O	Power off Ⓗ
16	GND	—	—	32	J CLK Ⓛ	O	Jast Clock Ⓛ

EDIT/SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (Mini DV : SP MODE)

REF. NO.	IC2201																			
MODE	1	2	3																	
STOP	4.9	5.0	0																	
PLAY	4.9	4.9	0																	
REC	4.9	5.0	0																	
F.F	4.9	4.9	0																	
REW	4.9	4.9	0																	

REF. NO.	IC2202																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	4.8	4.0	4.0	4.0	4.9	0	0	0	5.0	5.0	4.6	4.6	4.6	4.6	4.6	5.0				
PLAY	4.8	4.0	4.0	4.0	4.9	0	0	0	4.9	4.9	4.6	4.6	4.6	4.9	4.6	4.9				
REC	4.8	4.0	4.0	4.0	4.9	0	0	0	5.0	5.0	4.6	4.6	4.6	4.9	4.6	5.0				
F.F	4.8	4.0	4.0	4.0	4.9	0	0	0	4.9	4.9	4.6	4.6	4.6	4.9	4.6	4.9				
REW	4.8	4.0	4.0	4.0	4.9	0	0	0	4.9	4.9	4.6	4.6	4.6	4.9	4.6	5.0				

REF. NO.	IC2203																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	2.7	5.0	5.0	4.9	0	0	0	0	0	1.6	4.7	5.1	0	0	0.2	0	0	0
PLAY	0	0	2.7	4.9	4.9	4.9	0	0	0	0	0	1.6	0	5.1	0	0	0.1	0	0	0
REC	0	0	0.1	5.0	4.9	4.9	0	0	0	0	0	1.6	5.0	5.1	0	0	0.2	0	0	0
F.F	0	0	2.8	4.9	4.9	4.9	0	0	0	0	0	1.6	4.7	5.1	0	0	0.2	0	0	0
REW	0	0	2.7	4.9	4.9	4.9	0	0	0	0	0	1.6	4.7	5.1	0	0	0.2	0	0	0

REF. NO.	IC2203																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	0	0	4.7	0	0	4.7	0	0	0	0	0	0	0	4.7	4.7	2.2	2.1	0
PLAY	0	0	0	0	4.7	0	0	4.7	0	0	0	0	0	0	0	4.7	4.7	2.2	2.1	0
REC	0	0	0	0	4.7	0	0	4.7	0	0	0	0	0	0	0	4.7	4.7	2.2	2.2	0
F.F	0	0	0	0	4.7	0	0	4.7	0	0	0	0	0	0	0	4.7	4.7	2.2	2.1	0
REW	0	0	0	0	4.7	0	0	4.7	0	0	0	0	0	0	0	4.7	4.7	2.2	2.1	0

REF. NO.	IC2203																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	1.3	1.3	4.7	0	2.4	0	0	0	0	0.5	0	4.7	0	0	0	0	4.7	4.7	0.4	0
PLAY	1.3	1.3	—	0	2.4	0	0	0	0	1.0	0	4.7	0	0	0	0	4.7	4.7	0.5	0
REC	1.3	1.3	—	0	2.3	0	0	0	0	0.3	0	4.7	0	0	0	0	4.7	4.7	0.5	0
F.F	1.3	1.3	1.3	—	2.4	0	0	0	0	0.2	0	4.7	0	0	0	0.2	4.7	4.7	0.2	0
REW	1.3	1.3	4.7	—	2.4	0	0	0	0	0.3	0	4.7	0	0	0	0	4.7	4.7	0.2	0

REF. NO.	IC2203																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	5.0	0	3.6	4.2	4.5	4.4	4.4	4.4	2.9	2.9	2.4	4.7	5.0	0	0	4.0	0	0
PLAY	0	0	5.0	0	3.6	4.2	4.6	4.4	4.4	4.4	2.9	2.9	2.3	4.7	5.0	0	0	3.9	0	0
REC	0	0	5.0	0	3.6	4.1	4.6	4.4	4.4	4.4	2.9	2.9	2.3	4.7	5.0	0	0	3.9	0	0
F.F	0	0	4.9	0	3.6	4.3	4.5	4.4	4.4	4.4	2.9	2.9	2.3	4.7	5.0	0	0	4.0	0	0
REW	0	0	4.9	0	3.6	4.1	4.5	4.4	4.4	1.2	2.9	2.9	2.3	4.7	5.0	0	0	4.0	0	0

REF. NO.	IC2203																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	0	0	0	4.2	0	0	0	0	2.5	2.5	0	0	0	2.5	2.5	0	2.5	5.0	5.0	0.2
PLAY	0	0	0	4.2	0	0	0	0	2.5	2.5	0	0	0	2.5	2.5	0	2.5	4.9	4.9	0.6
REC	0	0	0	4.2	0	0	0	0	2.5	2.5	0	0	0	2.4	2.5	0	2.5	5.0	5.0	0.6
F.F	0	0	0	4.2	0	0	0	0	2.5	2.5	0	0	0	2.5	2.5	0	2.5	4.9	4.9	0.3
REW	0	0	0	4.2	0	0	0	0	2.5	2.5	0	0	0	2.5	2.5	0	2.5	4.9	4.9	0.2

REF. NO.	IC2204																			
MODE	1	2	3	4	5	6	7	8												
STOP	5.0	5.0	5.0	5.0	0	0	5.0	5.0												
PLAY	5.0	5.0	5.0	4.9	0	0	4.9	5.0												
REC	5.0	4.9	5.0	4.9	0	0	4.9	5.0												
F.F	4.9	4.9	4.9	4.9	0	0	4.9	4.9												
REW	5.0	4.9	4.9	4.9	0	0	4.9	4.9												

REF. NO.	IC2205																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	4.7	4.6	4.4	0	0	0	4.9	0	4.7	4.8	3.8	0.5	4.0	0.3	4.6	0	0	0	4.5	5.0
PLAY	4.7	4.6	4.4	0	0	0	4.9	0	4.7	4.7	3.9	0.5	4.0	0.3	4.6	0	0	0	4.5	4.9
REC	4.7	4.6	4.4	0	0	0	5.0	0	4.7	4.7	3.9	0.4	4.0	0.3	4.6	0	0.1	0	4.5	5.0
F.F	4.7	4.6	4.4	0	0	0	4.9	0	4.7	4.8	3.9	0.4	4.0	0.3	4.6	0	0	0	4.5	4.9
REW	4.7	4.6	4.4	0	0	0	4.9	0	4.7	4.8	3.7	0.4	4.0	0.3	4.6	0	0	0	4.5	4.9

REF. NO.	IC2205																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	4.8	2.1	2.3	0	0	0	5.0	5.0	5.0	5.0	0	0	0	0	0	0	0	0	0	0
PLAY	4.8	2.1	2.2	0	0	0	0	5.0	4.9	0	0	0	0	0	0	0	0	0	0	0
REC	4.8	2.0	2.3	0	0	0	5.0	5.0	5.0	5.0	0	0	0	0	0	0	0	0	0	0
F.F	4.8	2.1	2.3	0	0	0	4.9	4.9	4.9	4.9	0	0	0	0	0	0	0	0	0	0
REW	4.8	2.1	2.3	0	0	0	0.4	4.9	4.9	4.9	0	0	0	0.5	0	0	0	0	0	0

REF. NO.	IC2205																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	5.0	0	0	0	0	0	5.0	5.0	4.9	0	0	0	0	0	2.5	2.5	5.0	5.0	0	5.0
PLAY	4.9	0	0	0	0	0	5.0	4.9	4.9	0	0	0	0	0	2.5	2.5	4.9	5.0	0	4.9
REC	4.9	0	0	0	0	0	5.0	5.0	4.9	0	0	0	0	0	2.5	2.5	4.9	4.9	0	5.0
F.F	4.9	0	0	0	0	0	4.9	4.9	4.9	0	0	0	0	0	2.5	2.5	4.9	4.9	0	5.0
REW	4.9	0	0	0	0	0	5.0	4.9	4.9	0	0	0	0	0	2.5	2.5	5.0	5.0	0	4.9

REF. NO.	IC2205																			
MODE	61	62	63	64																
STOP	5.0	5.0	5.0	0.6																
PLAY	4.9	5.0	4.9	0.6																
REC	5.0	5.0	5.0	0.3																
F.F	4.9	4.9	4.9	1.7																
REW	4.9	4.9	4.9	1.2																

REF. NO.	IC2206																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	3.4	3.4	0	3.4	0	3.4	0	3.4	0	0	0	3.4	3.4	0	3.4				
PLAY	0	3.4	3.4	0	1.8	0	3.4	0	3.4	0	0	0	3.4	3.4	0	3.4				
REC	0	3.4	3.4	0	1.8	0	3.4	0	3.4	0	0	0	3.4	3.4	0	3.4				
F.F	0	3.4	3.4	0	1.8	0	3.4	0	3.4	0	0	0	3.4	3.4	0	3.4				
REW	0	3.4	3.4	0	1.8	0	3.4	0	3.4	0	0	0	3.4	3.4	0	3.4				

REF. NO.	IC2207																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	4.3	3.6	4.7	4.4	5.1	5.1	0	0.7	0.7	0.2	0.2	4.9	0.7	0.7	5.1	0	5.1	5.0	0	5.0
PLAY	4.3	3.6	4.7	4.4	5.1	5.1	0	0.7	1.1	1.1	1.0	4.9	1.1	0.9	1.1	0	5.1	1.1	0	5.0
REC	4.3	3.6	4.7	4.5	5.1	5.1	0	1.3	1.2	1.2	1.2	4.9	1.2	1.2	1.2	0	5.1	5.0	0	5.0
F.F	4.3	3.6	4.7	4.5	5.1	5.1	0	2.3	1.1	1.0	1.0	4.9	1.0	1.0	5.1	0	5.1	5.0	0	5.0
REW	4.3	3.6	4.7	4.4	5.1	5.1	0	2.2	2.2	1.2	1.0	4.9	1.1	1.1	5.1	0	5.1	5.0	0	5.0

REF. NO.	IC2207																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
STOP	5.0	0	5.0	5.0	0	0	5.0	5.0	0	5.0	5.1	0								
PLAY	5.0	0	5.0	5.0	0	0	5.0	5.0	0	1.1	5.1	0								
REC	5.0	0	5.0	5.0	0	0	5.0	5.0	0	5.0	5.1	0								
F.F	5.0	0	5.0	5.0	0	0	5.0	5.0	1.0	5.0	5.1	0								
REW	5.0	0	5.1	5.0	0	0	5.0	5.0	0	5.0	5.1	0								

REF. NO.	IC2208																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	4.3	3.6	4.7	4.6	5.1	5.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLAY	4.3	3.6	4.7	4.6	5.1	5.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REC	4.3	3.6	4.7	4.6	5.1	5.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F.F	4.3	3.6	4.7	4.5	5.1	5.1	0	0	0	0	0	0	0	0	5.1	0	5.1	5.0	0	5.0
REW	4.3	3.6	4.7	4.5	5.1	5.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

REF. NO.	IC2208																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
STOP	3.5	3.5	5.1	0.1	0	0	0.2	0	0	0	0.1	0.1								
PLAY	3.5	3.5	5.1	0.1	0	0	0.2	0	0	0	0.1	0.1								
REC	3.5	3.5	5.1	1.2	0	0	1.9	0	0	0	0.1	1.8								
F.F	5.0	0	5.1	0	0	0	0.1	0	0	0	0.1	0								
REW	3.5	3.5	5.1	0	0	0	0	0	0	0	0.1	0								

REF. NO.	IC2209										IC2210									
MODE	1	2	3								1	2	3							
STOP	5.1	5.1	0								4.7	0	4.7							
PLAY	5.1	5.1	0								4.7	0	4.7							
REC	5.1	5.1	0								4.7	0	4.7							
F.F	5.1	5.1	0								4.7	0	—							
REW	5.1	5.1	0								4.7	0	—							

REF. NO.	IC2211										IC2212									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	3.4	3.4	3.4	0	0	0	3.4	3.4			3.4	3.4	3.4	0	0	0	3.4	3.4		
PLAY	1.8	2.6	2.6	0	0.8	2.1	3.4	3.4			1.8	3.4	2.1	0	1.3	2.1	3.4	3.4		
REC	1.8	2.6	2.6	0	0.8	2.1	3.4	3.4			1.8	3.4	2.1	0	1.3	1.2	3.4	3.4		
F.F	1.8	2.6	2.6	0	0.8	2.1	3.4	3.4			1.8	3.4	2.1	0	1.3	2.1	3.4	3.4		
REW	1.8	2.6	2.6	0	0.8	2.1	3.4	3.4			1.8	3.4	2.1	0	1.3	2.0	3.4	3.4		

REF. NO.	IC2213										IC2214									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	0.1	3.4	3.4	0	0	3.4	3.4	3.4			0	3.4	0	0	0	0	0	3.4		
PLAY	0.4	3.4	1.3	0	2.1	3.4	3.4	3.4			1.3	2.6	0	0	0	0.4	0.4	3.4		
REC	0.4	3.4	1.3	0	2.1	3.4	3.4	3.4			1.3	2.6	0	0	0	0.4	0.4	3.4		
F.F	0.4	3.4	1.3	0	2.1	3.4	3.4	3.4			1.3	2.6	0	0	0	0.4	0.4	3.4		
REW	0.4	3.4	1.4	0	2.0	3.4	3.4	3.4			1.3	2.6	0	0	0	0.4	0.4	3.4		

REF. NO.	IC2215										IC2216									
MODE	1	2	3	4	5						1	2	3	4	5					
STOP	0	0.1	0	0	3.4						0	0	0	0	3.4					
PLAY	0	0.4	1.3	0.3	3.4						0	0	0	0	3.4					
REC	0	0.4	0	0.3	3.4						0	0	0	0	1.0					
F.F	0	0.4	0	0.3	3.4						0	0	0	0	3.4					
REW	0	0.3	0	0.3	3.4						0	3.7	0	0	3.4					

EDIT/SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (Mini DV : SP MODE)

REF. NO.	Q2201			Q2202			Q2203			Q2204			Q2205			Q2206		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	4.7	0	0	3.8	0.1	0	4.6	0	0	4.8	0	0	4.7	0	0	4.5	0
PLAY	0	4.7	0	0	3.9	0.1	0	4.6	0	0	4.8	0	0	4.7	0	0	0	4.5
REC	0	4.7	0	0	3.8	0.1	0	4.6	0	0	4.8	0	0	4.7	0	0	4.6	0
F.F	0	4.7	0	0	3.8	0.1	0	4.6	0	0	4.8	0	0	4.7	0	0	4.5	0
REW	0	4.7	0	0	3.9	0.1	0	4.6	0	0	4.8	0	0	4.7	0	0	4.5	0

REF. NO.	Q2207																	
MODE	E	C	B															
STOP	0	4.2	0.1															
PLAY	0	4.1	0.1															
REC	0	4.2	0.1															
F.F	0	4.2	0.1															
REW	0	4.2	0.1															

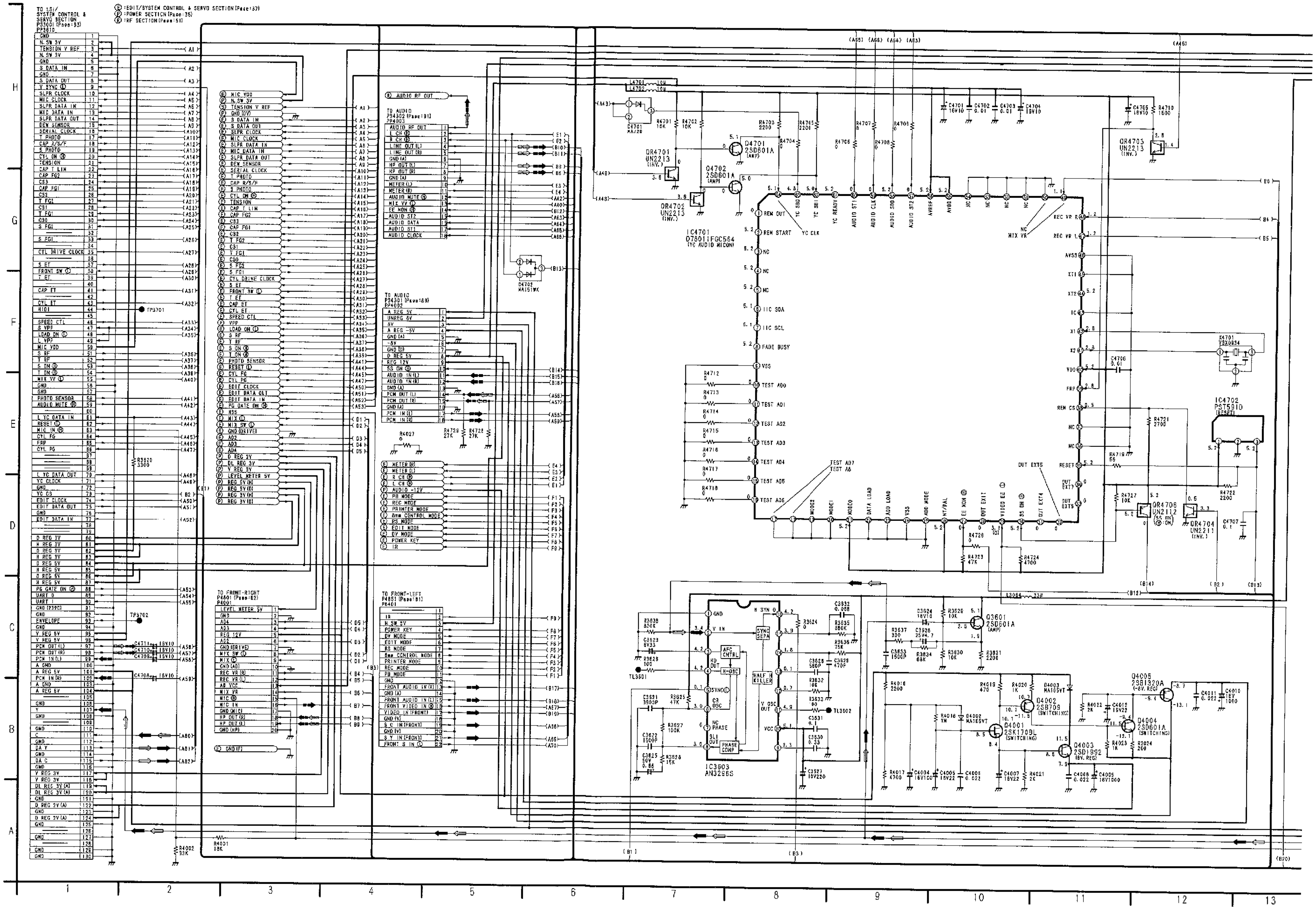
REF. NO.	QR2201			QR2202			QR2203			QR2204			QR2205			QR2206		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	3.5	0	5.1	0	0	0	3.4	0	0.1	2.8	0	0	4.0	0	0	4.5
PLAY	0	0	3.5	0	5.1	0	0	0	3.4	0	0.1	2.9	0	0	4.0	0	4.5	0
REC	0	0	3.5	0	5.1	0	0	0	3.4	0	0.2	2.8	0	0	4.0	0	0	4.5
F.F	0	0	3.5	0	5.1	0	0	0	3.4	0	0.1	2.9	0	0	4.0	0	0	4.5
REW	0	0	3.5	0	5.1	0	0	0	3.4	0	0.1	2.9	0	0	4.0	0	0	4.5

REF. NO.	QR2207			QR2208			QR2209			QR2210			QR2211			QR2212		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	3.5	0	0	3.5	0	4.5	1.0	0	3.6	1.1	0	4.5	0.9	0	0	3.3
PLAY	0	0	3.5	0	0	3.5	0	4.5	1.0	0	3.6	1.0	0	4.5	0.9	0	0	3.3
REC	0	0	3.5	0	0	3.5	0	4.6	1.0	0	3.6	1.1	0	4.5	0.9	0	0	3.3
F.F	0	0	3.5	0	0	3.5	0	4.5	1.0	0	3.6	1.0	0	4.5	0.9	0	0	3.3
REW	0	0	3.5	0	0	3.5	0	4.5	1.0	0	3.6	1.1	0	4.5	0.9	0	0	3.3

REF. NO.	QR2213			QR2214			QR2215			QR2216			QR2217			QR2218		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	4.4	0.5	0	0	3.7	0	4.6	0.4	0	5.1	0	0	5.1	0	0	5.0	0
PLAY	0	4.4	0.5	0	0	3.7	0	4.5	0.4	0	0	3.7	0	0	3.7	0	5.0	0
REC	0	4.4	0.5	0	0	3.7	0	4.6	0.4	0	0	3.7	0	0	3.7	0	5.1	0
F.F	0	4.4	0.5	0	0	3.7	0	4.5	0.4	0	0	3.7	0	0	3.7	0	5.0	0
REW	0	4.4	0.5	0	0	3.7	0	4.6	0.4	0	0	3.7	0	0	3.7	0	5.0	0

REF. NO.	QR2219			QR2220			QR2221			QR2222								
MODE	E	C	B	E	C	B	E	C	B	E	C	B						
STOP	0	0	4.7	0	0	3.2	0	0.1	3.1	0	0	3.5						
PLAY	0	0	4.7	0	0	3.2	0	0.1	3.1	0	0	3.5						
REC	0	0	4.7	0	0	3.2	0	0.1	3.1	0	0	3.5						
F.F	0	0	4.7	0	0	3.2	0	0.1	3.2	0	0	3.5						
REW	0	0	4.7	0	0	3.2	0	0.1	3.1	0	0	3.5						

3-15. AUDIO/VIDEO SECTION IN MAIN SCHEMATIC DIAGRAM


TO LSI/SYSTEM CONTROL & SERVO SECTION P3001 (Page 33) P2610
Ⓔ EDIT/SYSTEM CONTROL & SERVO SECTION (Page 37)
Ⓟ POWER SECTION (Page 35)
Ⓡ RF SECTION (Page 51)
TO AUDIO P4302 (Page 81) PP4003
TO AUDIO P4301 (Page 89) PP4002
TO FRONT-RIGHT P4601 (Page 82) P4001
TO FRONT-LEFT P4651 (Page 81) P6401
IC4701 D7501FGC564 (YC AUDIO MICON)
IC4702 PST5910 (RESET)
IC3603 AN3296S
Q4701 2SD601A (AMP)
Q4702 2SD601A (AMP)
QR4701 UN2213 (INV.)
QR4702 UN2213 (INV.)
QR4703 UN2213 (INV.)
QR4704 UN2211 (INV.)
QR4706 UN2112 (SS ON)
Q3601 2SD601A (AMP)
Q4001 2SK170BL (SWITCHING)
Q4002 2SB709 (SWITCHING)
Q4003 2SD1992 (8V. REG)
Q4004 2SD601A (SWITCHING)
Q4005 2SB1320A (-8V. REG)
X4701 VSX0834
D4702 MA151WK
TP3701
TP3702
TL3601
TL3602
H
G
F
E
D
C
B
A
1
2
3
4
5
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11
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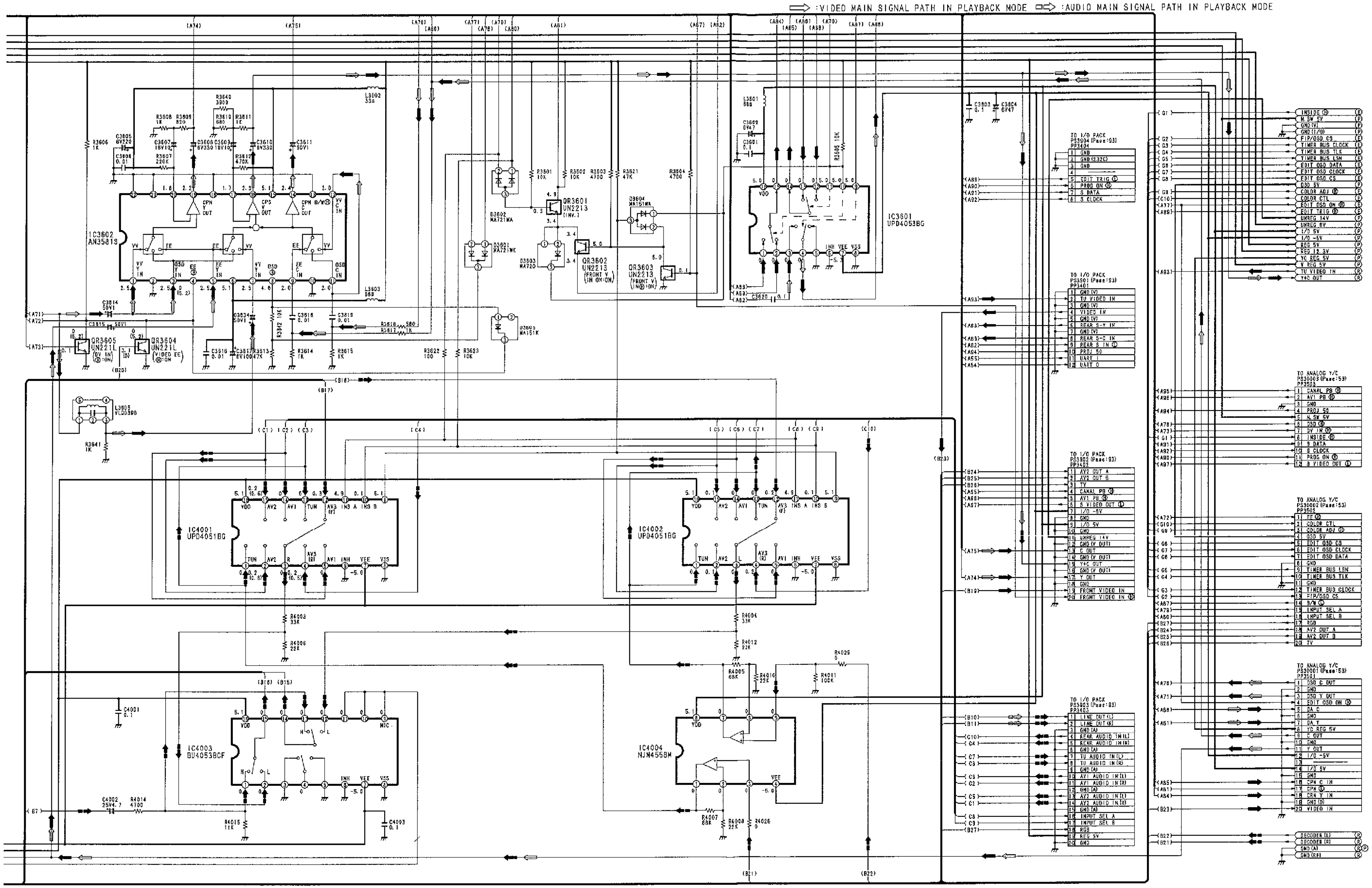
13

➡ :VIDEO MAIN SIGNAL PATH IN REC MODE
⇨ :VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
➡ :AUDIO MAIN SIGNAL PATH IN REC MODE
⇨ :AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE


IC3602
AN3581S
IC3601
UPD4053BG
IC4001
UPD4051BG
IC4002
UPD4051BG
IC4003
BU4053BCF
IC4004
NJM4558M
QR3601
UN2213
(INV.)
QR3602
UN2213
(FRONT V)
(IN ON:ON)
QR3603
UN2213
(FRONT V)
(IN ON:ON)
QR3604
UN221L
(VIDEO EE)
QR3605
UN221L
(DV IN)
D3601
MA721WK
D3602
MA721WA
D3603
MA720
D3604
MA151WA
D3605
MA151K
L3601
56
L3602
33
L3603
56
L3605
VLD3088
CPN Y OUT
CPS Y OUT
CPN B/W C OUT
VDD
AV2
AV1
TUN
AV3
INS A
INS B
INH
VEE
VSS
MIC
TO I/O PACK
PS3904 (Page:93)
PP3404
1 GND
2 GND (232C)
3 GND
4
5 EDIT TRIG (L)
6 PROG ON (H)
7 S DATA
8 S CLOCK
TO I/O PACK
PS3901 (Page:93)
PP3401
1 GND (V)
2 TU VIDEO IN
3 GND (V)
4 VIDEO IN
5 GND (V)
6 REAR S-Y IN
7 GND (V)
8 REAR S-C IN
9 REAR S IN (L)
10 PROJ 50
11 UART I
12 UART O
TO I/O PACK
PS3902 (Page:93)
PP3402
1 AV2 OUT A
2 AV2 OUT B
3 TV
4 CANAL PB (H)
5 AV1 PB (H)
6 S VIDEO OUT (L)
7 I/O -5V
8 GND
9 I/O 5V
10 GND
11 UNREG 14V
12 GND (V OUT)
13 C OUT
14 GND (V OUT)
15 Y+C OUT
16 GND (V OUT)
17 Y OUT
18 GND
19 FRONT VIDEO IN
20 FRONT VIDEO IN (H)
TO I/O PACK
PS3903 (Page:93)
PP3403
1 LINE OUT (L)
2 LINE OUT (R)
3 GND (A)
4 REAR AUDIO IN (L)
5 REAR AUDIO IN (R)
6 GND (A)
7 TU AUDIO IN (L)
8 TU AUDIO IN (R)
9 GND (A)
10 AV1 AUDIO IN (L)
11 AV1 AUDIO IN (R)
12 GND (A)
13 AV2 AUDIO IN (L)
14 AV2 AUDIO IN (R)
15 GND (A)
16 INPUT SEL A
17 INPUT SEL B
18 RGB
19 REG 5V
20 GND
INSIDE (H)
N. SW 5V
GND (V)
GND (I/O)
FIP/OSD CS
TIMER BUS CLOCK
TIMER BUS TLK
TIMER BUS LSN
EDIT OSD DATA
EDIT OSD CLOCK
EDIT OSD CS
OSD 5V
COLOR ADJ (H)
COLOR CTL
EDIT OSD ON (H)
EDIT TRIG (H)
UNREG 14V
UNREG 8V
I/O 5V
I/O -5V
REG 5V
REG 12.3V
YC REG 5V
V REG 5V
TU VIDEO IN
Y+C OUT
TO ANALOG Y/C
PS30003 (Page:53)
PP3503
1 CANAL PB (H)
2 AV1 PB (H)
3 GND
4 PROJ 50
5 N. SW 5V
6 OSD (H)
7 DV IN (H)
8 INSIDE (H)
9 S DATA
10 S CLOCK
11 PROG ON (H)
12 S VIDEO OUT (L)
TO ANALOG Y/C
PS30002 (Page:53)
PP3502
1 EE (H)
2 COLOR CTL
3 COLOR ADJ (H)
4 OSD 5V
5 EDIT OSD CS
6 EDIT OSD CLOCK
7 EDIT OSD DATA
8 GND
9 TIMER BUS LSN
10 TIMER BUS TLK
11 GND
12 TIMER BUS CLOCK
13 FIP/OSD CS
14 B/W (L)
15 INPUT SEL A
16 INPUT SEL B
17 RGB
18 AV2 OUT A
19 AV2 OUT B
20 TV
TO ANALOG Y/C
PS30001 (Page:53)
PP3501
1 OSD C OUT
2 GND
3 OSD Y OUT
4 EDIT OSD ON (H)
5 DA C
6 GND
7 DA Y
8 YC REG 5V
9 C OUT
10 GND
11 Y OUT
12 I/O -5V
13
14 I/O 5V
15 GND
16 CPN C IN
17 CPN (L)
18 CPN Y IN
19 GND (D)
20 VIDEO IN
DECODER (L)
DECODER (R)
GND (A)
GND (RF)

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE) ·LINE IN SIGNAL LEVEL...-10dB 1kHz

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE) ·LINE IN SIGNAL LEVEL...-10dB 1kHz

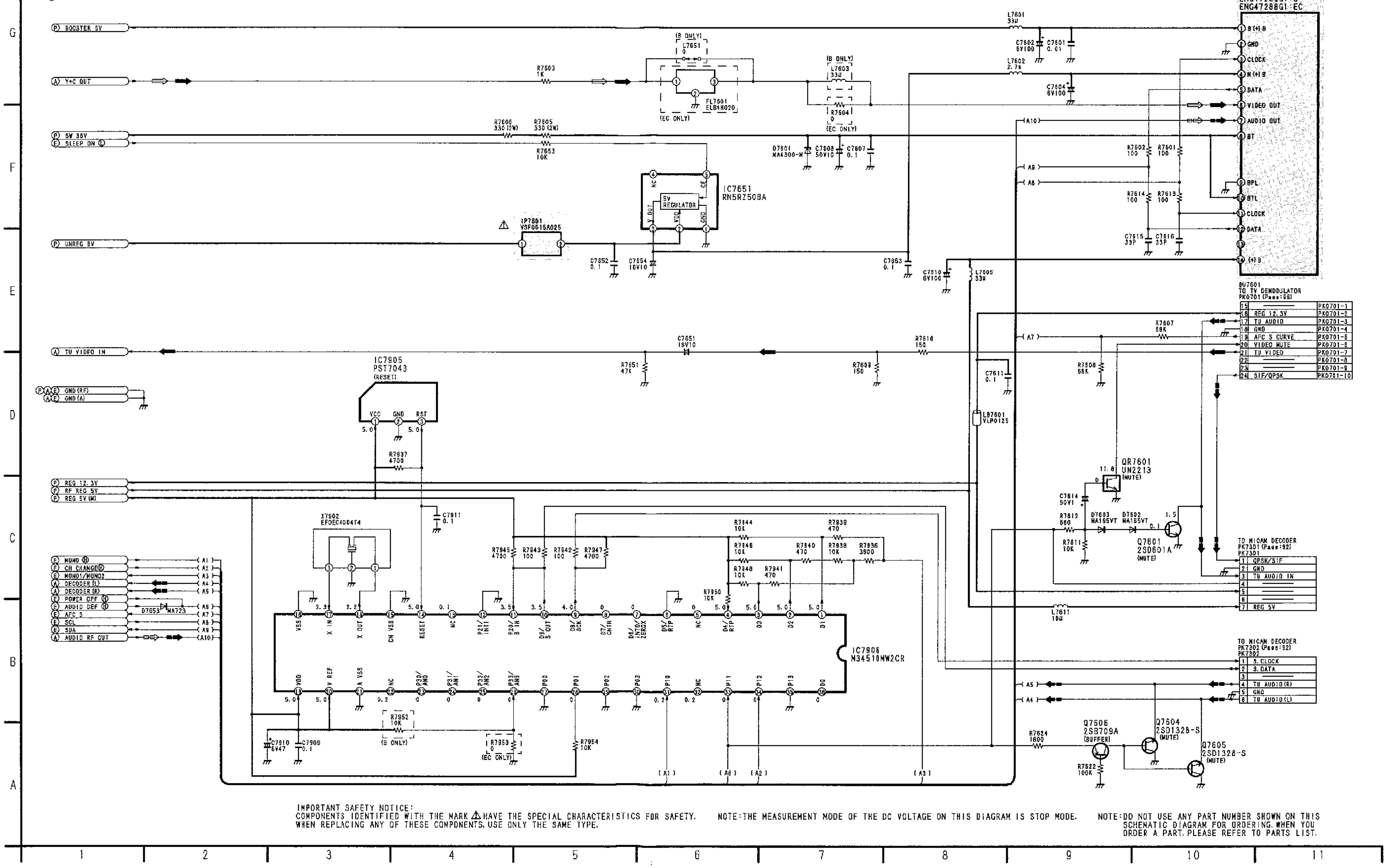
NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART. PLEASE REFER TO PARTS LIST

14 15 16 17 18 19 20 21 22 23 24 25

3-16. RF SECTION IN MAIN SCHEMATIC DIAGRAM

Ⓔ :EDIT/SYSTEM CONTROL & SERVO SECTION (Page:37)
Ⓐ :AUDIO/VIDEO SECTION (Page:47)
Ⓟ :POWER SECTION (Page:35)

➡ :VIDEO MAIN SIGNAL PATH IN REC MODE
⇨ :VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
➡ :AUDIO MAIN SIGNAL PATH IN REC MODE
⇨ :AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

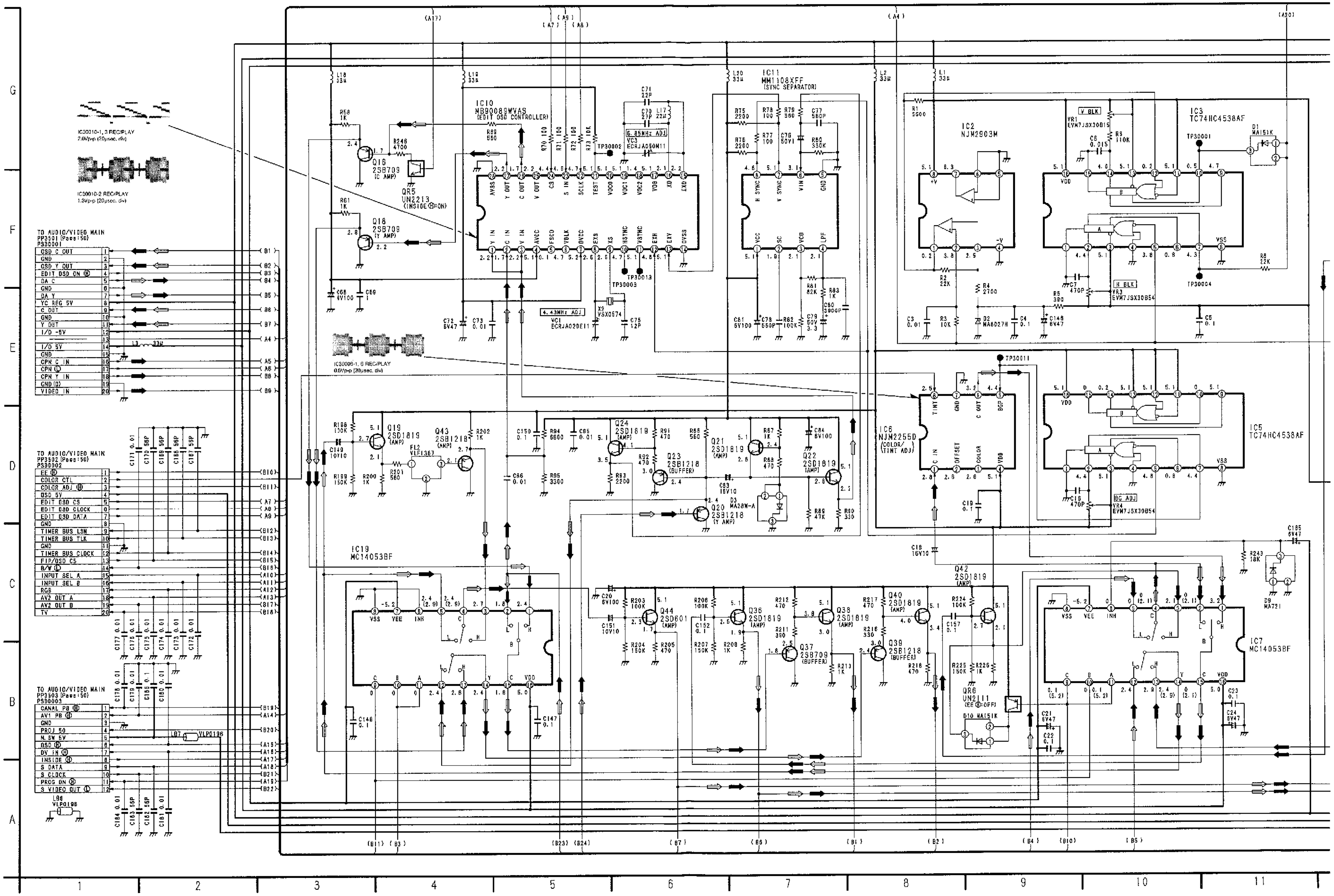

G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
Ⓟ BOOSTER 5V
Ⓐ Y+C OUT
Ⓟ 5V 38V
Ⓔ SLEEP ON
Ⓟ UNREG 8V
Ⓐ TU VIDEO IN
Ⓟ Ⓐ Ⓔ GND (RF)
Ⓐ Ⓔ GND (A)
Ⓟ REG 12.3V
Ⓟ RF REG 5V
Ⓟ REG 5V (M)
Ⓔ MONO Ⓗ
Ⓔ CH CHANGE Ⓗ
Ⓔ MONO1/MONO2
Ⓐ DECODER (L)
Ⓐ DECODER (R)
Ⓔ POWER OFF Ⓗ
Ⓔ AUDIO DEF Ⓗ
Ⓔ AFC S
Ⓔ SCL
Ⓔ SDA
Ⓐ AUDIO RF OUT
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
D7653 MA723
TU7601 TUNER UNIT
ENG47289G1:B
ENG47288G1:EC
B(+)B
GND
CLOCK
M(+)B
DATA
VIDEO OUT
AUDIO OUT
BT
BPL
BTL
CLOCK
DATA
(+)B
L7601 33μ
C7602 6V100
C7601 0.01
L7602 2.7μ
C7604 6V100
(B ONLY) L7651 0
FL7601 ELB4H020
(EC ONLY)
(B ONLY) L7603 33μ
R7604 0
(EC ONLY)
R7603 1K
R7606 330 (2W)
R7605 330 (2W)
R7653 10K
D7801 MA4300-M
C7808 50V10
C7807 0.1
IC7651 RN5RZ50BA
NC
CE
5V REGULATOR
V OUT
VDD
GND
IP7801 VSF0015A025
C7652 0.1
C7654 16V10
C7653 0.1
C7610 6V100
L7605 33μ
R7602 100
R7601 100
R7614 100
R7613 100
C7615 33P
C7616 33P
C7651 16V10
R7651 47K
R7609 150
R7610 150
C7611 0.1
LB7601 VLP0125
R7607 68K
R7608 68K
IC7905 PST7043 (RESET)
VCC
GND
RST
R7937 4700
C7911 0.1
X7902 EFOEC4004T4
R7945 4700
R7943 100
R7942 100
R7947 4700
R7944 10K
R7946 10K
R7948 10K
R7940 470
R7941 470
R7939 470
R7938 10K
R7936 3900
R7950 10K
VSS
X IN
X OUT
CN VSS
RESET
NC
P21/INT1
P20/S IN
D9/S OUT
D8/SCK
D7/CNTR
D6/INT0/ZEROX
D5/RTP
NC
D4/RTP
D3
D2
D1
VDD
V REF
A VSS
NC
P30/AN0
P31/AN1
P32/AN2
P33/AN3
P00
P01
P02
P03
P10
NC
P11
P12
P13
D0
IC7906 M34510MW2CR
R7952 10K (B ONLY)
R7953 0 (EC ONLY)
R7954 10K
C7910 6V47
C7909 0.1
QR7601 UN2213 (MUTE)
C7614 50V1
R7612 560
D7603 MA165VT
D7602 MA165VT
Q7601 2SD601A (MUTE)
R7611 10K
L7611 10μ
DU7601
TO TV DEMODULATOR
PK0701 (Page:96)
15
16 REG 12.3V
17 TU AUDIO
18 GND
19 AFC S CURVE
20 VIDEO MUTE
21 TU VIDEO
22
23
24 SIF/QPSK
PK0701-1
PK0701-2
PK0701-3
PK0701-4
PK0701-5
PK0701-6
PK0701-7
PK0701-8
PK0701-9
PK0701-10
TO NICAM DECODER
PK7301 (Page:92)
PK7301
1 QPSK/SIF
2 GND
3 TU AUDIO IN
4
5
6
7 REG 5V
TO NICAM DECODER
PK7302 (Page:92)
PK7302
1 S.CLOCK
2 S.DATA
3
4 TU AUDIO (R)
5 GND
6 TU AUDIO (L)
R7624 1800
R7622 100K
Q7606 2SB709A (BUFFER)
Q7604 2SD1328-S (MUTE)
Q7605 2SD1328-S (MUTE)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

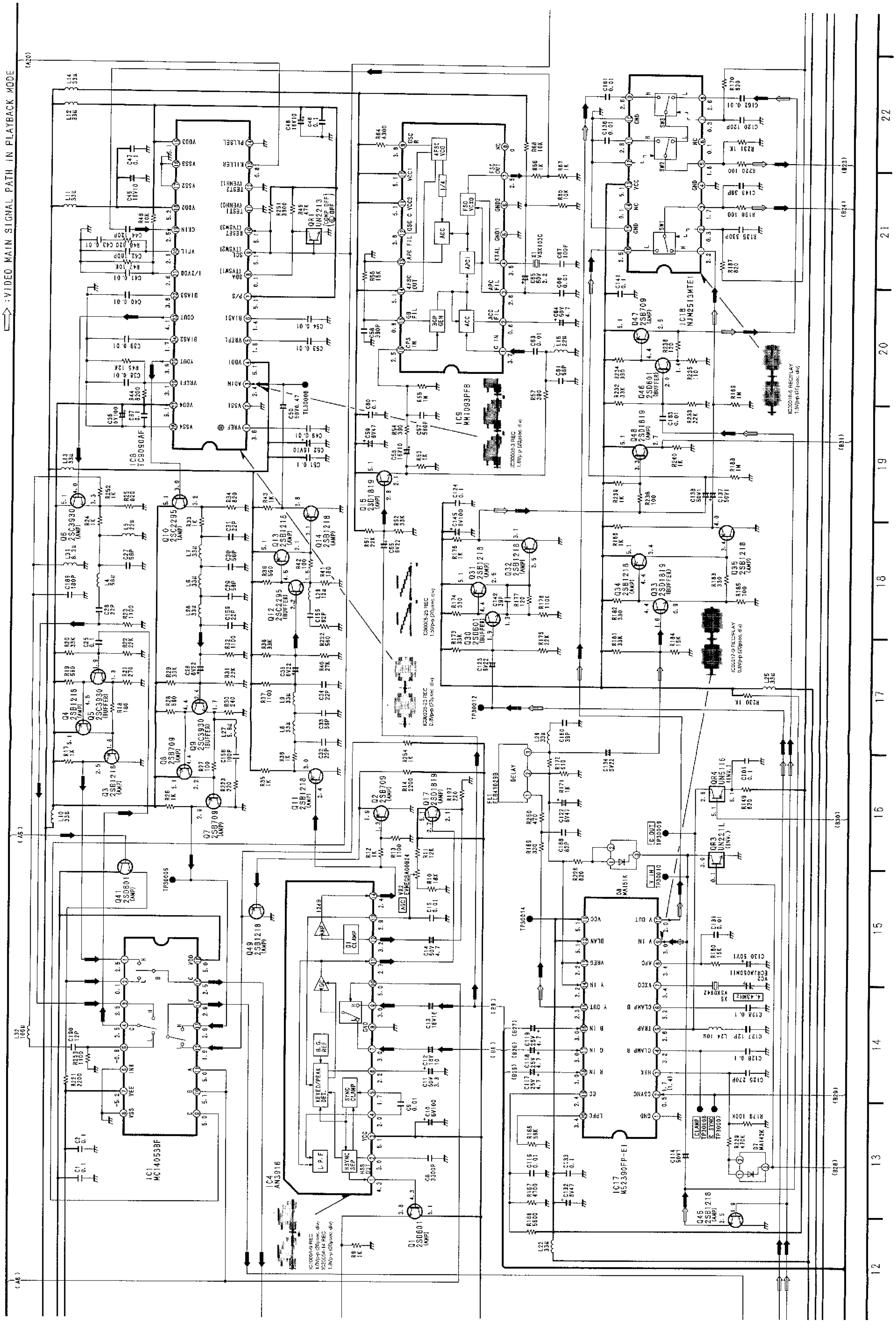
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-17. ANALOG Y/C SCHEMATIC DIAGRAM
[REF. NO. 30000 SERIES]

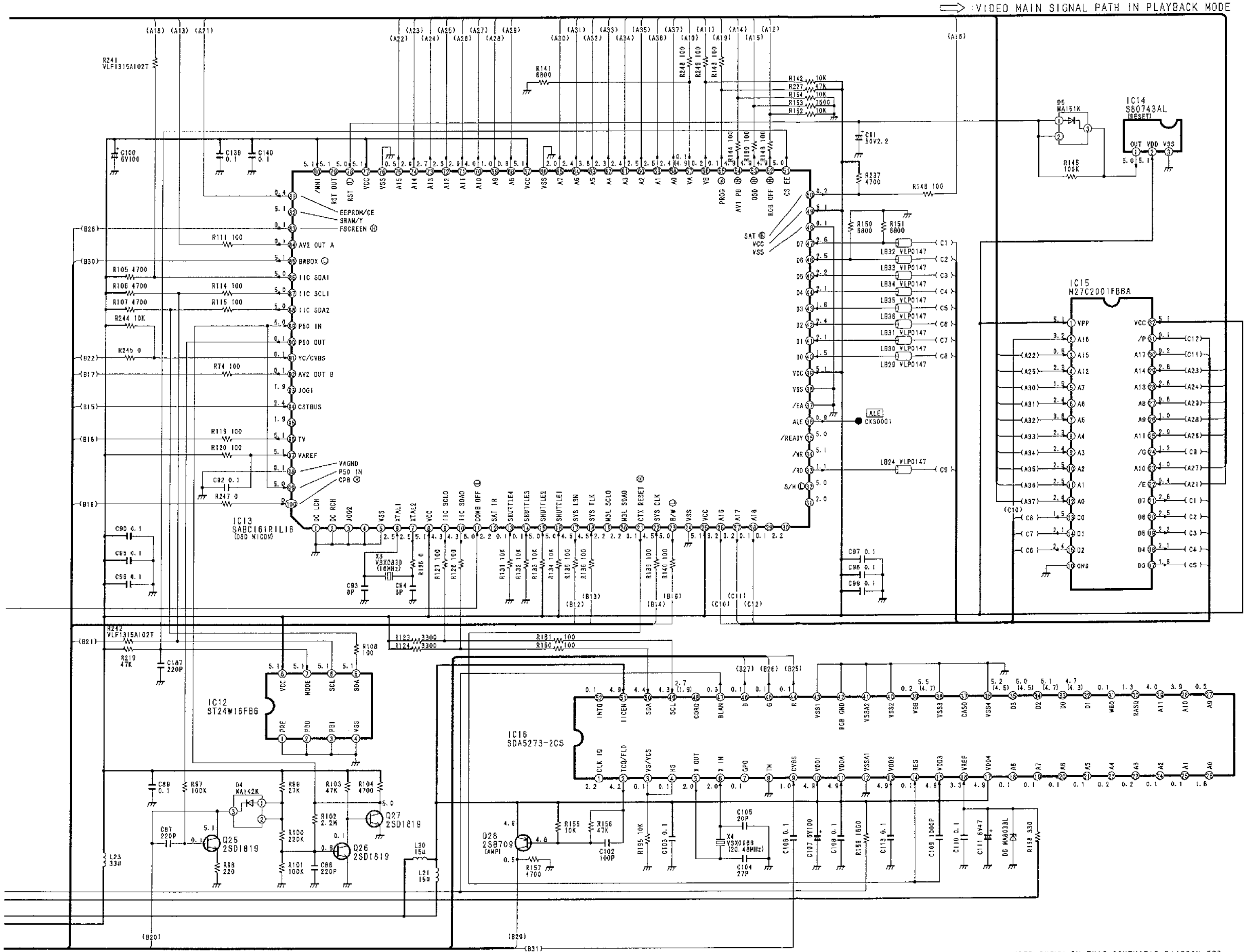

IC30010-1, 3 REC/PLAY
2.0Vp-p (20μsec. div)
IC30010-2 REC/PLAY
1.3Vp-p (20μsec. div)
IC30006-1, 6 REC/PLAY
0.6Vp-p (20μsec. div)
TO AUDIO/VIDEO MAIN
PP3501 (Pass:50)
PS30001
1 OSD C OUT
2 GND
3 OSD Y OUT
4 EDIT OSD ON Ⓗ
5 DA C
6 GND
7 DA Y
8 YC REG 5V
9 C OUT
10 GND
11 Y OUT
12 I/O -5V
13
14 I/O 5V
15 GND
16 CPN C IN
17 CPN Ⓛ
18 CPN Y IN
19 GND (Q)
20 VIDEO IN
TO AUDIO/VIDEO MAIN
PP3502 (Pass:50)
PS30002
1 EE Ⓗ
2 COLOR CTL
3 COLOR ADJ Ⓗ
4 OSD 5V
5 EDIT OSD CS
6 EDIT OSD CLOCK
7 EDIT OSD DATA
8 GND
9 TIMER BUS LSN
10 TIMER BUS TLK
11 GND
12 TIMER BUS CLOCK
13 FIP/OSD CS
14 B/W Ⓛ
15 INPUT SEL A
16 INPUT SEL B
17 RGB
18 AV2 OUT A
19 AV2 OUT B
20 TV
TO AUDIO/VIDEO MAIN
PP3503 (Pass:50)
PS30003
1 CANAL PB Ⓗ
2 AV1 PB Ⓗ
3 GND
4 PROJ 50
5 N. SW 5V
6 OSD Ⓗ
7 DV IN Ⓗ
8 INSIDE Ⓗ
9 S DATA
10 S CLOCK
11 PROG ON Ⓗ
12 S VIDEO OUT Ⓛ
L87 VLP0196
L86 VLP0196
IC10
MB90089WVAS
(EDIT OSD CONTROLLER)
IC11
MM1108XFF
(SYNC SEPARATOR)
IC2
NJM2903M
IC3
TC74HC4538AF
IC5
TC74HC4538AF
IC6
NJM2255D
(COLOR/TINT ADJ)
IC7
MC14053BF
IC19
MC14053BF
Q16 2SB709 (C AMP)
Q18 2SB709 (Y AMP)
QR5 UN2213 (INSIDE Ⓗ ON)
QR6 UN2111 (EE Ⓗ OFF)
Q19 2SD1819 (AMP)
Q43 2SB1218 (AMP)
Q24 2SD1819 (AMP)
Q23 2SB1218 (BUFFER)
Q21 2SD1819 (AMP)
Q20 2SB1218 (Y AMP)
Q22 2SD1819 (AMP)
Q44 2SD601 (AMP)
Q36 2SD1819 (AMP)
Q37 2SB709 (BUFFER)
Q38 2SD1819 (AMP)
Q39 2SB1218 (BUFFER)
Q40 2SD1819 (AMP)
Q42 2SD1819 (AMP)
D1 MA151K
D2 MA8027H
D3 MA28W-A
D9 MA721
D10 MA151K
FL2 VLF1367
VC1 ECRJA020E11
VC3 ECRJA050M11
VR1 EVM7JSX30B15
VR3 EVM7JSX30B54
VR4 EVM7JSX30B54
X2 VSX0574
4.43MHz ADJ
6.85MHz ADJ
V BLK
H BLK
BG ADJ
TP30001
TP30002
TP30003
TP30004
TP30011
TP30013
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

➡ :VIDEO MAIN SIGNAL PATH IN REC MODE

⇨ :VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE


IC1 MC14053BF
IC4 AN3916
IC8 TC9090AF
IC9 MN1093PFB
IC17 M52390FP-E1
IC18 NJM2513MTE1
Q1 2SD601 (AMP)
Q2 2SB709 (AMP)
Q3 2SB1218 (AMP)
Q4 2SB1218
Q5 2SC3930 (BUFFER)
Q6 2SC3930 (AMP)
Q7 2SB709 (AMP)
Q8 2SB709 (AMP)
Q9 2SC3930 (BUFFER)
Q10 2SC2295
Q11 2SB1218 (AMP)
Q12 2SC2295 (BUFFER)
Q13 2SB1218 (AMP)
Q14 2SB1218
Q15 2SD1819 (AMP)
Q17 2SD1819 (AMP)
Q30 2SD601 (BUFFER)
Q31 2SB1218 (AMP)
Q32 2SB1218 (AMP)
Q33 2SD1819 (BUFFER)
Q34 2SB1218 (AMP)
Q35 2SB1218 (AMP)
Q41 2SD601 (AMP)
Q45 2SB1218 (AMP)
Q46 2SD601 (BUFFER)
Q47 2SB709 (AMP)
Q48 2SD1819 (AMP)
Q49 2SB1218 (AMP)
QR3 UN2211L (INV.)
QR4 UN5116 (INV.)
FL1 EFB4V023B
DELAY
TP30005
TP30012
TP30014
(A5)
(A6)
(A20)
(B23)
(B24)
(B28)
(B29)
(B30)
(B31)
12
13
14
15
16
17
18
19
20
21
22

➡ :VIDEO MAIN SIGNAL PATH IN REC MODE
⇨ :VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE


IC13
SABC161R1L16
(OSD NICON)
IC14
S80743AL
(RESET)
IC15
M27C2001FBBA
IC12
ST24W16FB6
IC16
SDA5273-2CS
Q25 2SD1819
Q26 2SD1819
Q27 2SD1819
Q28 2SB709 (AMP)
D4 KA142K
D5 MA151K
D6 MA8033L
X3 VSX0830 (16MHz)
X4 VSX0888 (20.48MHz)
ALE CK30001
R241 VLF1315A102T
R242 VLF1315A102T
L23 33u
L30 15u
L21 15u

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

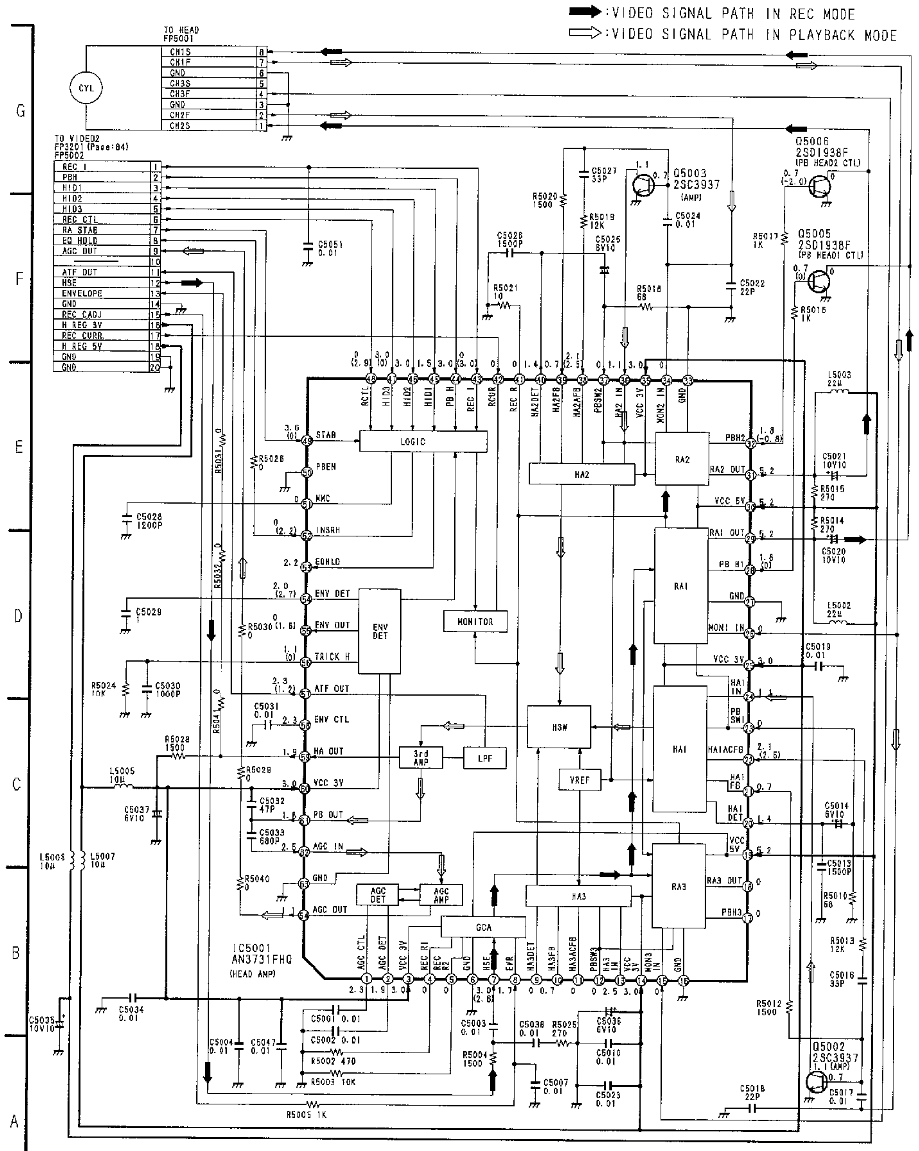
NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32

IC30013 (SABC161RIL16): SUB MICON

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
1	DCLCH	I	AD converter, not used
2	DCRCH	I	AD converter, not used
3	JOG2	I	Jog dial 2 input
4	—	I	Hi-Z
5	Vss	—	GND
6	XTAL1	I	Oscillator amplifier input, 16MHz
7	XTAL2	O	Oscillator amplifier output, 16MHz
8	Vcc	I	5V
9	IIC SCL0	O	IIC clock line to CTX IC
10	IIC SDA0	O	IIC data line to CTX IC
11	COMB Ⓗ	O	Comb filter ON Ⓗ, OFF Ⓛ
12	SAT IR	O	Infrared code for SAT receivers
13	SHUTTLE4	I	Shuttle input 4
14	SHUTTLE3	I	Shuttle input 3
15	SHUTTLE2	I	Shuttle input 2
16	SHUTTLE1	I	Shuttle input 1
17	LSN	O	Timer bus listen line
18	TLK	I	Timer bus talk line
19	SCL0 (spare)	O	NC
20	SDA0 (spare)	O	NC
21	RESET Ⓗ	O	Reset signal for Compact Text (0=normal, 1=Reset)
22	CLK	I	Timer bus clock line
23	B/W Ⓛ	O	L and High Impedance; L-B/W selected in FUNCTION menu
24	Vss	—	GND
25	Vcc	I	5V
26	A16	O	A16 address line
27	A17	O	A17 address line
28	A18	O	A18 address line
29	—	I	Pin is active for 4M EPROM
30	—	O	NC (used for ROM Monitor input)
31	—	O	NC (used for ROM Monitor input)
32	S/M Ⓛ	O	Croma Mix for SECAM/MESECAM box
33	/RD	O	External memory read strobe (for EPROM and SRAM)
34	/WR	O	External memory write strobe (for SRAM)
35	/READY	I	Ready input, not used
36	ALE	O	Address latch enable output, not used
37	/EA	—	External access enable pin, connected to GND
38	Vss	—	GND
39	Vcc	I	5V
40	D0	I	D0 data line
41	D1	I	D1 data line
42	D2	I	D2 data line
43	D3	I	D3 data line
44	D4	I	D4 data line
45	D5	I	D5 data line
46	D6	I	D6 data line
47	D7	I	D7 data line
48	Vss	—	GND
49	Vcc	I	5V
50	SAT Ⓗ	O	I/O control: The selection of SAT tuner or AV3. H: SAT tuner L: AV3 In This logic is valid, if AV3 is selected by VA/VB
51	CS EE	O	Write enable for EEPROM. (1=READ only 0=Write enabled)
52	RGB OFF Ⓗ	O	I/O control
53	OSD Ⓗ	O	H=any OSD character displayed, L=no OSD character displayed
54	AV1 PB Ⓗ	O	Pin8 of I/O control → PB Ⓗ
55	PROG Ⓗ	O	I/O control to switch IIC bus for LW-programmer. H: IIC bus is connected to AV2. L: IIC bus is not connected to AV2.
56	VB	O	I/O control: The selection of VCR IN VA/VB:LL:tuner VA/VB:HL:AV1 VA/VB:LH:AV2 VA/VB:HH:AV3 or SAT Normal Audio Input select for ZN/ZT
57	VA	O	Same as Pin56
58	A0	O	A0 address line
59	A1	O	A1 address line
60	A2	O	A2 address line
61	A3	O	A3 address line
62	A4	O	A4 address line
63	A5	O	A5 address line
64	A6	O	A6 address line
65	A7	O	A7 address line
66	Vss	—	GND
67	Vcc	I	5V
68	A8	O	A8 address line
69	A9	O	A9 address line
70	A10	O	A10 address line
71	A11	O	A11 address line
72	A12	O	A12 address line
73	A13	O	A13 address line
74	A14	O	A14 address line
75	A15	O	A15 address line
76	Vss	—	GND
77	Vcc	I	5V
78	/RST	I	Reset Input (LOW level=reset active)
79	/RSTOUT	O	for battery back up circuit
80	/NMI	I	Non maskable interrupt, connected to Vcc
81	/CE	O	Chip enable for external EPROM (0=EPROM enabled)
82	/Y	O	Chip select for SRAM
83	FSCREEN Ⓗ	O	Fullscreen high signal, (0=no OSD fullscreen, 1=OSD fullscreen)
84	AV2 OUT A	O	AV2 output selector A
85	BWBOX Ⓛ	O	force B/W OSD box for SECAM, (0=force B/W boxes, 1=colour boxes)
86	IIC SDA1	O	IIC bus data line 1 (except EEPROM)
87	IIC SCL1	O	IIC bus clock line 1
88	IIC SDA2	O	IIC bus clock line 2 (for EEPROM)
89	P50 IN	I	Project50 input
90	P50 OUT	O	Project 50 output
91	YC/CVBS	I	S VIDEO Ⓛ INPUT
92	AV2 OUT B	O	AV2 output selector B
93	JOG1	I	Jog dial 1 input
94	CSTBUS	I	Chip select signal for timer bus (1=OSD ucon selected, 0=FIP selectyed)
95	—	O	NC (used for ROM Monitor input)
96	TV Ⓗ	O	TV High: for I/O logic
97	VAREF	I	Reference voltage for A/D converter, not used
98	VAGND	—	GND for A/D converter, not used
99	P50 in	I	Reserved for Project50 in
100	CPB Ⓗ	I	PB Ⓗ signal of AV2 is inputted. This logic will be used for I/O control.

3-18. HEAD AMP SCHEMATIC DIAGRAM


➡:VIDEO SIGNAL PATH IN REC MODE
⇨:VIDEO SIGNAL PATH IN PLAYBACK MODE
TO HEAD FP5001
CH1S
CH1F
GND
CH3S
CH3F
GND
CH2F
CH2S
CYL
TO VIDEO2 FP3201 (Page:84) FP5002
REC I
PBH
HID1
HID2
HID3
REC CTL
RA STAB
EQ HOLD
AGC OUT
ATF OUT
HSE
ENVELOPE
GND
REC CADJ
H REG 5V
REC CURR
H REG 5V
GND
GND
LOGIC
HA2
RA2
RA1
HA1
RA3
HA3
HSW
VREF
MONITOR
ENV DET
3rd AMP
LPF
AGC DET
AGC AMP
GCA
IC5001 AN3731FHQ (HEAD AMP)
Q5003 2SC3937 (AMP)
Q5006 2SD1938F (PB HEAD2 CTL)
Q5005 2SD1938F (PB HEAD1 CTL)
Q5002 2SC3937 (AMP)
L5003 22μ
L5002 22μ
L5005 10μ
L5006 10μ
L5007 10μ
C5051 0.01
C5027 33P
C5024 0.01
C5028 1500P
C5026 6V10
C5022 22P
C5021 10V10
C5020 10V10
C5019 0.01
C5014 6V10
C5013 1500P
C5016 33P
C5018 22P
C5017 0.01
C5028 1200P
C5029 1
C5030 1000P
C5031 0.01
C5032 47P
C5033 680P
C5037 6V10
C5034 0.01
C5035 10V10
C5004 0.01
C5047 0.01
C5001 0.01
C5002 0.01
C5003 0.01
C5038 0.01
C5036 6V10
C5010 0.01
C5007 0.01
C5023 0.01
R5020 1500
R5019 12K
R5021 10
R5018 68
R5017 1K
R5016 1K
R5015 270
R5014 270
R5010 68
R5013 12K
R5012 1500
R5026 0
R5031 0
R5032 0
R5030 0
R5034 0
R5041 0
R5024 10K
R5028 1500
R5029 0
R5040 0
R5002 470
R5003 10K
R5025 270
R5004 1500
R5005 1K
A
B
C
D
E
F
G

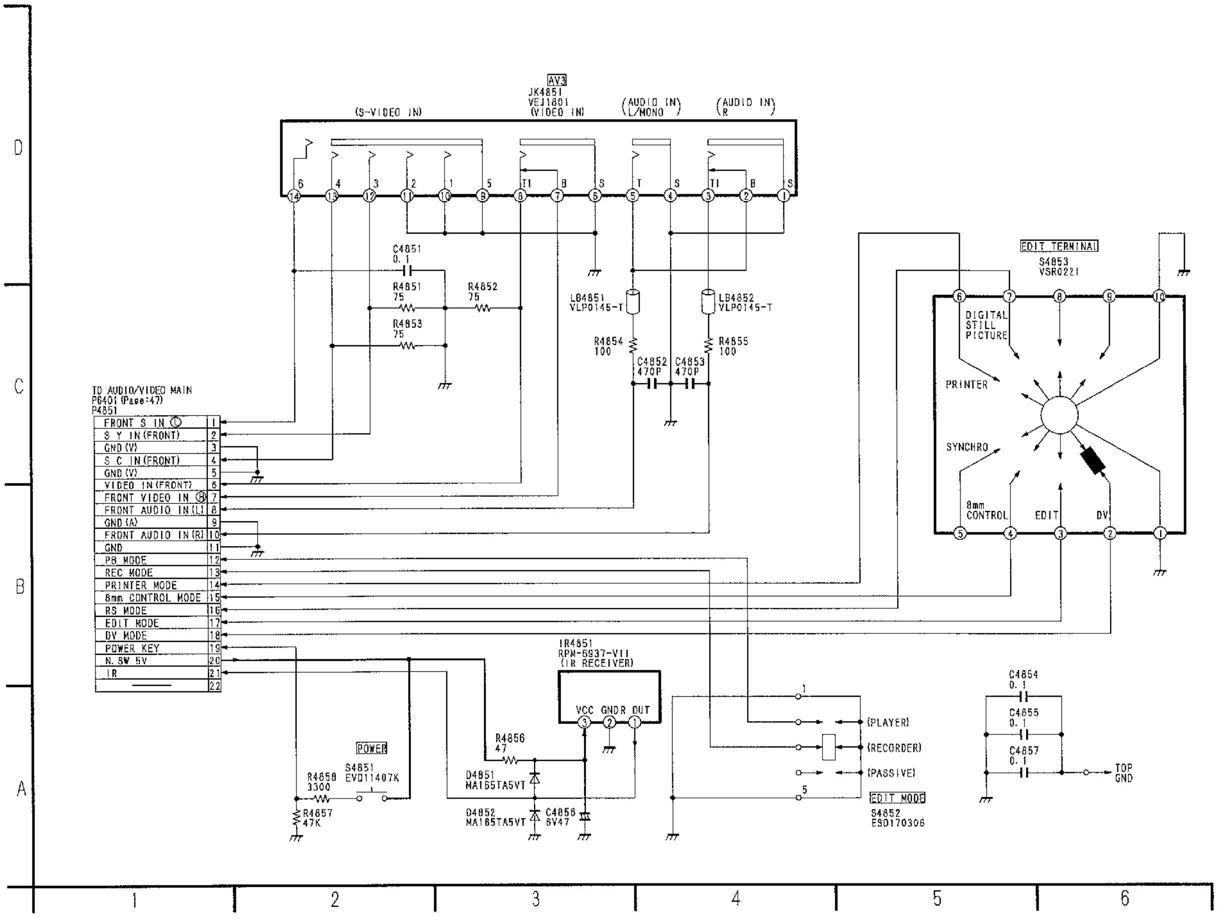
NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OFTHE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODEWITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

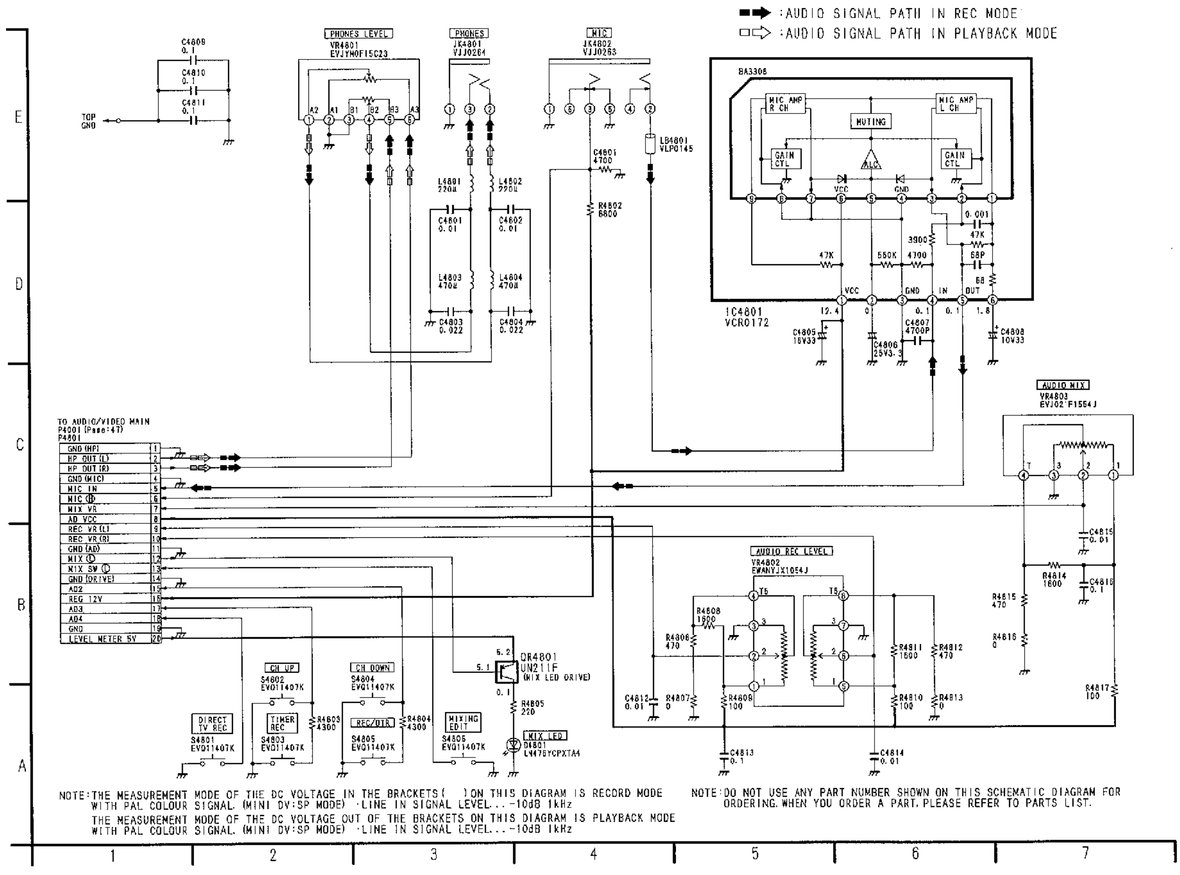
1 2 3 4 5

3-19 FRONT (L) SCHEMATIC DIAGRAM


AV3
JK4851
VEJ1801
(S-VIDEO IN)
(VIDEO IN)
(AUDIO IN L/MONO)
(AUDIO IN R)
C4851 0.1
R4851 75
R4852 75
R4853 75
LB4851 VLP0145-T
LB4852 VLP0145-T
R4854 100
R4855 100
C4852 470P
C4853 470P
EDIT TERMINAL
S4853 VSR0221
DIGITAL STILL PICTURE
PRINTER
SYNCHRO
8mm CONTROL
EDIT
DV
TO AUDIO/VIDEO MAIN
P6401 (Page:47)
P4851
1 FRONT S IN Ⓛ
2 S Y IN (FRONT)
3 GND (V)
4 S C IN (FRONT)
5 GND (V)
6 VIDEO IN (FRONT)
7 FRONT VIDEO IN Ⓗ
8 FRONT AUDIO IN (L)
9 GND (A)
10 FRONT AUDIO IN (R)
11 GND
12 PB MODE
13 REC MODE
14 PRINTER MODE
15 8mm CONTROL MODE
16 RS MODE
17 EDIT MODE
18 DV MODE
19 POWER KEY
20 N. SW 5V
21 IR
22
IR4851
RPM-6937-V11
(IR RECEIVER)
VCC GNDR OUT
R4856 47
D4851 MA165TA5VT
D4852 MA165TA5VT
C4856 6V47
POWER
S4851 EVQ11407K
R4858 3300
R4857 47K
(PLAYER)
(RECORDER)
(PASSIVE)
EDIT MODE
S4852 ESD170306
C4854 0.1
C4855 0.1
C4857 0.1
TOP GND
A B C D
1 2 3 4 5 6

3-20. FRONT (R) SCHEMATIC DIAGRAM

■➡ :AUDIO SIGNAL PATH IN REC MODE
□⇨ :AUDIO SIGNAL PATH IN PLAYBACK MODE

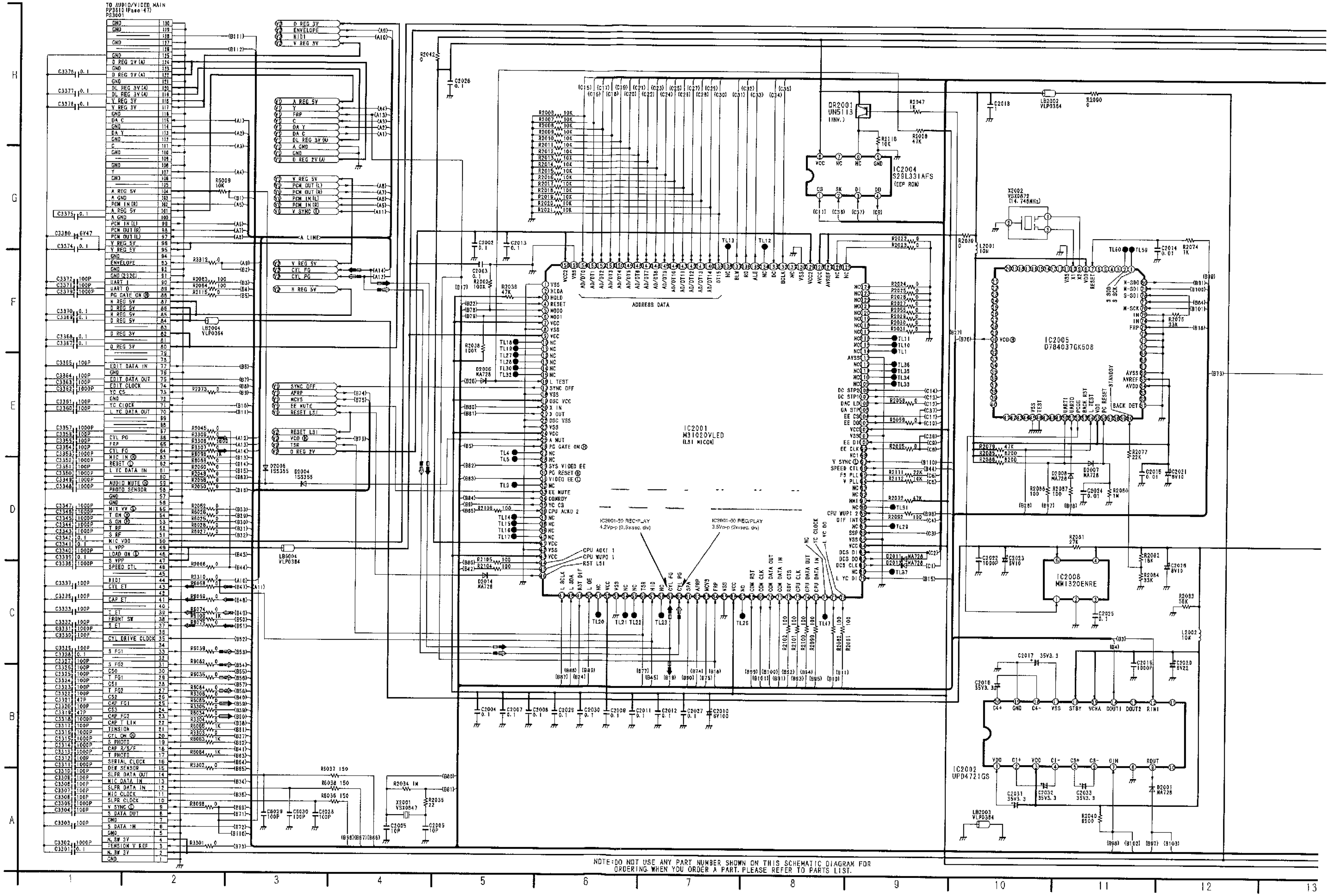

C4809 0.1
C4810 0.1
C4811 0.1
TOP GND
PHONES LEVEL
VR4801
EVJYM0F15C23
A2 A1 B1 B2 B3 A3
PHONES
JK4801
VJJ0264
MIC
JK4802
VJJ0263
LB4801 VLP0145
C4801 4700
R4802 6800
L4801 220μ
L4802 220μ
C4801 0.01
C4802 0.01
L4803 470μ
L4804 470μ
C4803 0.022
C4804 0.022
BA3308
MIC AMP R CH
MIC AMP L CH
MUTING
GAIN CTL
ALC
VCC
GND
IN
OUT
0.001
47K
3900
560K
4700
68P
68
IC4801
VCR0172
12.4
0
0.1
0.1
1.8
C4805 16V33
C4806 25V3.3
C4807 4700P
C4808 10V33
AUDIO MIX
VR4803
EVJ02'F1554J
C4815 0.01
R4814 1600
C4816 0.1
R4815 470
R4816 0
R4817 100
TO AUDIO/VIDEO MAIN
P4001 (Page:47)
P4801
1 GND (HP)
2 HP OUT (L)
3 HP OUT (R)
4 GND (MIC)
5 MIC IN
6 MIC Ⓗ
7 MIX VR
8 AD VCC
9 REC VR (L)
10 REC VR (R)
11 GND (AD)
12 MIX Ⓛ
13 MIX SW Ⓛ
14 GND (DRIVE)
15 AD2
16 REG 12V
17 AD3
18 AD4
19 GND
20 LEVEL METER 5V
AUDIO REC LEVEL
VR4802
EWANYJX1054J
R4808 1600
R4806 470
R4807 0
R4809 100
R4811 1600
R4812 470
R4810 100
R4813 0
C4812 0.01
C4813 0.1
C4814 0.01
QR4801
UN211F
(MIX LED DRIVE)
5.2
5.1
0.1
R4805 220
MIX LED
D4801
LN476YCPXTA4
CH UP
S4802 EVQ11407K
CH DOWN
S4804 EVQ11407K
DIRECT TV REC
S4801 EVQ11407K
TIMER REC
S4803 EVQ11407K
R4803 4300
REC/DTR
S4805 EVQ11407K
R4804 4300
MIXING EDIT
S4806 EVQ11407K
A B C D E
1 2 3 4 5 6 7

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE) ·LINE IN SIGNAL LEVEL...−10dB 1kHz

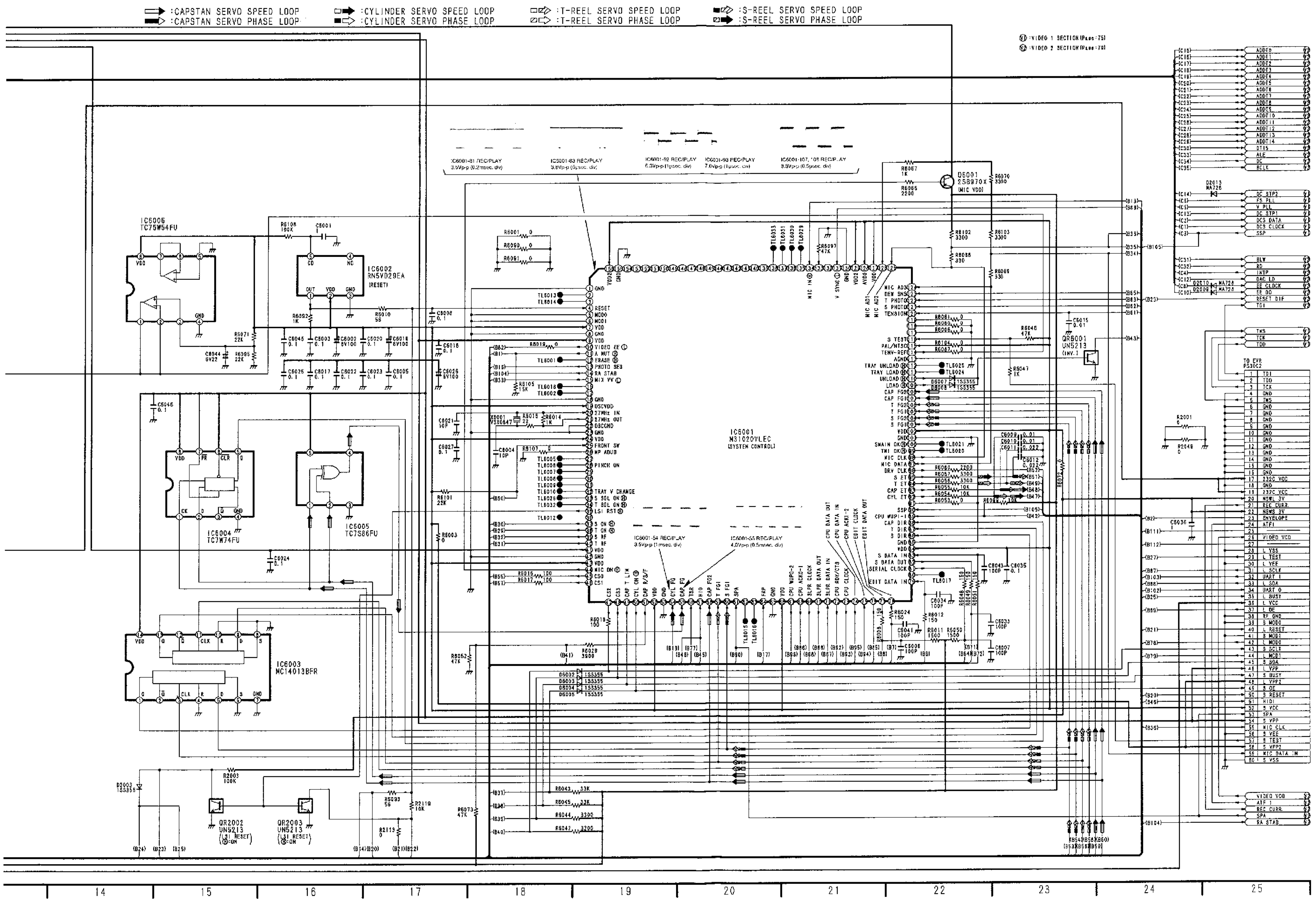
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE) ·LINE IN SIGNAL LEVEL...−10dB 1kHz

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-21. LSI/SYSTEM CONTROL & SERVO SECTION IN DIAITAL SCHEMATIC DIAGRAM


TO AUDIO/VIDEO MAIN PP3010 (Page 47) PS3001
IC2001 M31020VLED (LSI MICON)
ADDRESS DATA
IC2001-55 REC/PLAY 4.2Vp-p (0.5msec. div)
IC2001-60 REC/PLAY 3.5Vp-p (2msec. div)
IC2004 S29L331AFS (EEP ROM)
DR2001 UN5113 (INV.)
IC2005 D784037GK508
X2002 VSX0672 (14.7456MHz)
IC2006 MM1320ENRE
IC2002 UPD4721GS
X2001 VSX0647
LB2002 VLP0364
LB2003 VLP0364
LB2004 VLP0364
LB6004 VLP0384
D2005 1SS355
D2004 1SS355
D2014 MA728
D2006 MA728
D2007 MA728
D2008 MA728
D2001 MA728
A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8
9
10
11
12
13

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


:CAPSTAN SERVO SPEED LOOP
:CAPSTAN SERVO PHASE LOOP
:CYLINDER SERVO SPEED LOOP
:CYLINDER SERVO PHASE LOOP
:T-REEL SERVO SPEED LOOP
:T-REEL SERVO PHASE LOOP
:S-REEL SERVO SPEED LOOP
:S-REEL SERVO PHASE LOOP
Ⓥ1 :VIDEO 1 SECTION(Page:75)
Ⓥ2 :VIDEO 2 SECTION(Page:79)
IC6001-81 REC/PLAY 3.5Vp-p (0.2msec. div)
IC6001-83 REC/PLAY 3.8Vp-p (5μsec. div)
IC6001-92 REC/PLAY 6.0Vp-p (1μsec. div)
IC6001-93 REC/PLAY 7.0Vp-p (1μsec. div)
IC6001-107, 108 REC/PLAY 3.3Vp-p (0.5μsec. div)
IC6001-54 REC/PLAY 3.5Vp-p (1msec. div)
IC6001-55 REC/PLAY 4.0Vp-p (0.5msec. div)
IC6001 M31020VLEC (SYSTEM CONTROL)
IC6002 RN5VD29EA (RESET)
IC6003 MC14013BFR
IC6004 TC7W74FU
IC6005 TC7S86FU
IC6006 TC75W54FU
Q6001 2SB970X (MIC VDD)
QR6001 UN5213 (INV.)
QR2002 UN5213 (L31 RESET) (H:ON)
QR2003 UN5213 (L31 RESET) (H:ON)
D2003 1SS355
D2013 MA728
D2010 MA728
D2008 MA728
D6002 1SS355
D6003 1SS355
D6004 1SS355
D6005 1SS355
D6007 1SS355
D6008 1SS355
X6001 VSX0647
ADDT0
ADDT1
ADDT2
ADDT3
ADDT4
ADDT5
ADDT6
ADDT7
ADDT8
ADDT9
ADDT10
ADDT11
ADDT12
ADDT13
ADDT14
DT15
ALE
DC
BCLK
DC STP2
FS PLL
V PLL
DC STP1
DCS DATA
DCS CLOCK
SSP
BLW
RD
INTP
DAC LD
EE CLOCK
EE DO
RESET DIF
TGI
TMS
TCK
TDO
TO EVR PS30C2
1 TDI
2 TDO
3 TCK
4 GND
5 TMS
6 GND
7 GND
8 GND
9 GND
10 GND
11 GND
12 GND
13 GND
14 GND
15 GND
16 GND
17 232C VCC
18 GND
19 232C VCC
20 NSWL 3V
21 REC CURR.
22 NSWS 3V
23 ENVELOPE
24 ATFI
25
26 VIDEO VCO
27
28 L VSS
29 L TEST
30 L VEE
31 L SCLK
32 UART I
33 L SDA
34 UART O
35 L BUSY
36 L VCC
37 L OE
38 RF GND
39 S MOD0
40 L RESET
41 S MOD1
42 L MOD0
43 S SCLK
44 L MOD1
45 S SDA
46 L VPP
47 S BUSY
48 L VPP2
49 S OE
50 S RESET
51 HIDI
52 S VCC
53 SPA
54 S VPP
55 MIC CLK
56 S VEE
57 S TEST
58 S VPP2
59 MIC DATA IN
60 S VSS
VIDEO VCO
ATF I
REC CURR.
SPA
RA STAB
14
15
16
17
18
19
20
21
22
23
24
25

IC2001(M31020VLED)：LSI MICON

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION	PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
1	VSS	—		60	CYL PG	I	Cylinder PG
2	HLDA	O	Ext-Bus Hold Acknowlede/BST TCK (CLK)	61	SPA	I	SPA
3	HOLD	I	Ext-Bus Hold Request	62	AFRP	I	AFRP
4	RESET	I	Reset	63	MCVS	I	MCVS
5	MOD0	I	Single Chip Mode = Vss Vss	64	FRP	I	Frame reference pulse
6	MOD1	I	Memory Extend Mode = Vss Vcc	65	VSS	—	
7	VCC	—		66	VCC	—	
8	VSS	—		67	NC	O	—
9	VCC	—		68	COM RST	O	RS232C RESET
10	NC	O	—	69	COM CLK	I	RS232C CLK IN
11	NC	O	—	70	COM DATA OUT	O	RS232C SERIAL-DATA OUT
12	NC	O	—	71	COM DATA IN	I	RS232C SERIAL-DATA IN
13	NC	O	—	72	RDY CTS	I	from SYSCON ACK
14	NC	O	—	73	CPU CLK	O	to SYSCON CLK
15	NC	O	—	74	CPU DATA OUT	O	to SYSCON DATA
16	L TEST	I	EVR TEST MODE (L)	75	CPU DATA IN	I	from SYSCON DATA
17	SYNC OFF	O	L: Sync Gate Off H: Sync Gate On	76	NC	O	—
18	VSS	—		77	YC CLOCK	O	YC MICON Serial Clock
19	OSC VCC	—		78	L YC DO	O	YC MICON Data out
20	X IN	I	27MHz	79	L YC DI	I	YC MICON Data in
21	X OUT	O	27MHz	80	NC	O	—
22	OSC VSS	—		81	DSC CLK	O	CAS & DVIO Serial Clock
23	VSS	—		82	DSC D0	O	CAS & DVIO Serial Data Out
24	VCC	—		83	DSC D1	I	CAS & DVIO Serial Data In
25	A MUT	O	AUDIO MUTE	84	VCC	—	
26	PG GATE ONⒽ	O	PG GATE Control	85	VSS	—	
27	NC	O	—	86	SSP	I	Sector Start Pulse
28	NC	O	—	87	NC	O	—
29	SYS VIDEO EE	I	SYSCON EE/VV	88	DIF INT	I	Digital Interface IF
30	PG RESETⒽ	O	PG RESET	89	CPU WUPI 2	O	—
31	VIDEO EEⓁ	O	I/O Pack EE/VV Select	90	NC	O	—
32	NC	O	—	91	NMI	I	Pull-up
33	EEMUTE	O	EE MUTE	92	NC	O	—
34	COMRDY	O	232C MICON RDY	93	NC	O	—
35	YC CS	O	YC MICON CS	94	V PLL	O	Video PLL
36	CPU ACK 0-2	O	—	95	FS PLL	O	FS PLL (ATF ERR for Linear arrengement)
37	CTL 27M	O	27MHz Freq. Select	96	NC3(SPEED C TL)	I	CYL PG Amp Control (FF/REW 100 Times or more)
38	NC	O	—	97	NC2(VSYNC)	I	REC V Countermeasure
39	NC	O	—	98	NC1	O	Spare
40	NC	O	—	99	EE CLK	O	EEprom & DAC Clock
41	VCC	—		100	EE DI	I	EEprom & DAC Data In
42	VSS	—		101	VSS	—	
43	VCC	—		102	VCC	—	
44	CPU ACKO-1	I	from SYSCON ACK	103	EE DO	O	EEprom & DAC Data Out
45	CPU WUPO-1	O	to SYSCON REQ	104	EE CS	O	EEprom Chip Select
46	RST LSI	O	DVIO, CAS, EDA Reset	105	GA STP	O	L: Active H: Not Active
47	L SCKL	I	for FLASH CLK	106	DAC LD	O	DAC Load
48	L SDA	I	for FLASH DATA IN	107	DCS STP1	O	DVIO Serial Strobe Pulse
49	RST DIF	O	DIF LSI Reset	108	DCS STP2	O	CAS Serial Strobe Pulse
50	L 0E	I	for FLASH WRITE 0E	109	NC	O	—
51	NC	O	—	110	NC	O	—
52	VCC	—		111	NC	O	—
53	VSS	—		112	NC	O	—
54	NC	O	—	113	AVSS	—	
55	NC	O	—	114	NC	I	Connect to GND (0Ω)
56	TSR	I	Track Start Refference	115	NC	I	Connect to GND (0Ω)
57	HID	I	HSW	116	NC	I	Connect to GND (0Ω)
58	NC	O	—	117	NC	I	Connect to GND (0Ω)
59	CYL FG	I	Cylinder FG	118	NC	I	Connect to GND (0Ω)

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION	PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
119	NC	I	Connect to GND (0Ω)	138	BHW	O	—
120	NC	I	Connect to GND (0Ω)	139	DT15	I/O	EXT-Memory Address/Data Bus
121	NC	I	Connect to GND (0Ω)	140	ADDT14	I/O	EXT-Memory Address/Data Bus
122	NC	I	Connect to GND (0Ω)	141	ADDT13	I/O	EXT-Memory Address/Data Bus
123	NC	I	Connect to GND (0Ω)	142	ADDT12	I/O	EXT-Memory Address/Data Bus
124	NC	I	Connect to GND (0Ω)	143	ADDT11	I/O	EXT-Memory Address/Data Bus
125	NC	I	Connect to GND (0Ω)	144	ADDT10	I/O	EXT-Memory Address/Data Bus
126	NC	I	Connect to GND (0Ω)	145	ADDT9	I/O	EXT-Memory Address/Data Bus
127	AVREF	—		146	ADDT8	I/O	EXT-Memory Address/Data Bus
128	AVCC	—		147	ADDT7	I/O	EXT-Memory Address/Data Bus
129	VCC2	—		148	ADDT6	I/O	EXT-Memory Address/Data Bus
130	VSS	—		149	ADDT5	I/O	EXT-Memory Address/Data Bus
131		O	—	150	ADDT4	I/O	EXT-Memory Address/Data Bus
132	BCLK	O		151	ADDT3	I/O	EXT-Memory Address/Data Bus
133	D0	I	Data Complete for Ext-Momory mode	152	ADDT2	I/O	EXT-Memory Address/Data Bus
134	R/W	O	—	153	ADDT1	I/O	EXT-Memory Address/Data Bus
135	ALE	O	Address Latch Enable for Ext-Memory mode	154	ADDT0	I/O	EXT-Memory Address/Data Bus
136	RD	O	Read Strobe for Ext-Memory mode	155	VSS	—	
137	BLW	O	Byte Low Write for Ext-Memory mode	156	VCC2	—	

IC2005（D784037GK508)：RS-232C INTERFACE MICROCOMPUTER

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
1	EVR SCK	O	Serial Clock Signal for SYNC Serial Communication (To Camera Micom)
2	EVR SBO	O	Serial Data Signal for SYNC Serial Communication (To Camera Micom)
5	VTR T	O	SYNC Serial Communication Enable Signal for Camera Micom
7	RESET	I	Reset Signal
8	VDD	—	VDD (+3V)
9	X2	O	Oscillator (14.7456MHz)
10	X1	I	Oscillator (14.7456MHz)
11	GND	—	GND
12	S TITLE L	O	Sound Effect Control Signal
13	LR CONT	O	LCD Driver Control (L/R Invert)
14	UD CONT	O	LCD Driver Control (U/D Invert)
15	LCD P SAVE	—	(N.C.)
17	INSEL	—	(N.C.)
18	TALLY	O	TALLY LED Control
19	A LINE H	—	(N.C.)
20	T PH AD2	O	Take µ
21	T PH AD1	O	Take µ
22	S PH AD2	O	Supply Tape Sensor
23	S PH AD1	O	Supply Tape Sensor
24	EYE P SAVE	—	(N.C.)
25	LCD WIDE	O	LCD Driver Wide Select
26	SPK ON H	O	Speaker ON
27	WIDNSW H	O	Noise Silent
28	VTR LED	O	VTR Mode LED
29	CAM LED	O	CAMERA Mode LED
30	VCO H	O	VCO Test Mode Ⓗ
31	LCD BL CONT	O	LCD Back Light Control Signal
32	BL BRIGHT H	O	Back Light Bright Control Signal
33	EVF BL CONT	O	EVF Back Light Control Signal
34	EVF ON	O	EVF ON
35	LCD ON	O	LCD ON
44	CLKOUT	—	(N.C.)
45	GND	—	GND

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
46	TEST	—	GND
47	CGCS	O	CG CS
48	CGPCL	O	CG PCL
49	P12	—	(N.C.)
50	UARTI	I	RS-232C Data
51	UARTO	O	RS-232C Data
52	PCOE	O	RS-232C Driver Output Enable
53	BACK RST	—	(N.C.)
54	TEST0	I	VTR Test Signal (H: Normal, L: Test Mode)
55	VDD	—	VDD (+3V)
56	PC RST	I	Reset Signal Detect (AD Input)
60	STBY	I	RS-232C Cable Connect Confirm
61	BACK DET	—	GND
64	AVDD	—	Voltage for AD Converter (+3V)
65	AVREF1	—	Refference Voltage for AD Converter (+3V)
66	AVSS	—	GND for AD Converter
67	ANO0	—	(N.C.)
68	ANO1	—	(N.C.)
69	AVREF2	—	GND
70	AVREF3	—	GND
71	P20	—	GND
72	CAM T	I	Camera Service/232C Micom Select Signal (H: 232C, L: Camera Service)
73	FRP	I	Frame SYNC Signal
76	SCK	I	Serial Clock Signal for SYNC Serial Communication (To VTR Micom)
77	COM RDY	I	SYNC Serial Communication Enable Signal for VTR Micom
78	EVR SDI	I	Serial Data Input for SYNC Serial Communication (To Camera Micom)
79	SDI	I	Serial Data for SYNC Serial Communication (To VTR Micom)
80	SDO	O	Serial Data for SYNC Serial Communication (To VTR Micom)

IC6001 (M31020VLEC) : SYSTEM CONTROL MICROPROCESSOR

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
1	GND	—	
2	—	O	Low FIX
3	—	O	Low FIX
4	RESET	I	RESET INPUT
5	MOD0	I	SIGNAL CHIP MODE SELECT
6	MOD1	I	SIGNAL CHIP MODE SELECT
7	VDD	—	VDD
8	GND	—	GND
9	VDD	—	VDD
10	VIDEO.EEⓁ	O	EE/VV SELECT OUTPUT (EE: L)
11	A.MUTⒽ	O	AUDIO MUTE Ⓗ
12	ERASEⒽ	O	ERASE ON Ⓗ/OFF
13	PHOTO.SNS	O	TAPE SENSOR LED (ON: L)
14	RASTAB	O	S TAB OUTPUT
15	MIX.VVⓁ	O	MIX OUTPUT (VV MODE): L
16	EE.MONIⓁ	O	EE MONITOR OUT: L
17	—	O	FIX LOW OUTPUT
18	GND	—	GND
19	VDD	—	OSC POWER
20	27MHz. IN	I	27MHz INPUT
21	27MHz. OUT	O	27MHz OUTPUT
22	GND	—	OSC GND
23	GND	—	GND
24	VDD	—	POWER
25	FRONT SW	I	FRONT DOOR OPEN DETECT INPUT (OPEN: L, CLOSE/NO DOOR: H)
26	MP ADUB	O	FIX Low OUTPUT
27	—	O	FIX Low OUTPUT
28	PINCH ONⒽ	O	PINCH SOLENOID CONTROL OUTPUT
29	—	O	FIX Low OUTPUT
30	—	O	FIX Low OUTPUT
31	—	O	FIX Low OUTPUT
32	TRAY VCHANGE	O	TRAY MOTOR VOLTAGE CONTROL OUTPUT
33	S SOL ONⒽ	O	S REEL SOLENOID CONTROL OUTPUT
34	T SOL ONⒽ	O	T REEL SOLENOID CONTROL OUTPUT
35	PINE RSTⒽ	O	RESET High OUTPUT
36	—	O	FIX LOW OUTPUT
37	S.ONⒽ	O	S REEL ON/OFF CONTROL
38	T.ONⒽ	O	T REEL ON/OFF CONTROL
39	S.RF	O	S REEL ROTATION DIRECTION CONTROL
40	T.RF	O	T REEL ROTATION DIRECTION CONTROL
41	VDD	—	POWER
42	GND	—	GND
43	VDD	—	POWER
44	MIC.ONⒽ	O	POWER FOR MIC
45	CS0	O	SERIAL/PARALLEL CONVERSION IC CHIP SELECT SIGNAL
46	CS1	O	SERIAL/PARALLEL CONVERSION IC CHIP SELECT SIGNAL
47	CS2	O	SERIAL/PARALLEL CONVERSION IC CHIP SELECT SIGNAL
48	CS3	O	SERIAL/PARALLEL CONVERSION IC CHIP SELECT SIGNAL
49	CAP.T.LIM	O	CAP TORQUE LIMIT
50	CYL.ONⓁ	O	CYL DRIVING: Low
51	CAP.R/S/F	O	CAPSTAN ROTATION DIRECTION CONTROL
52	VDD	—	POWER
53	GND	—	GND
54	CYL.FG	I	CYLINDER FG

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
55	CAP.FG	I	CAPSTAN 2 PHASE FG
56	TSR	I	HID PHASE REF. SIGNAL
57	HID	I	HEAD SELECT SW
58	CAP.FG2	I	CAPSTAN FG 2
59	T.FG1	I	T REEL FG 1
60	S.FG1	I	S REEL FG 1
61	SPA	I	
62	—	O	FIX Low OUTPUT
63	—	O	FIX Low OUTPUT
64	FRP	I	FRAME REF. SIGNAL
65	GND	—	GND
66	VDD	—	POWER
67	(CPU WUP0-2)	O	SYS CTL μ-PROCESSOR ↔ LSI (OMMUNICATION)
68	CPU ACK0-1	O	SYS CTL μ-PROCESSOR ↔ LSI (OMMUNICATION)
69	SLPR.CLOCK	O	SERIAL/PARALLEL CONVERSION EXPANSION IC
70	SLPR. DATA. OUT	O	SERIAL/PARALLEL CONVERSION EXPANSION IC
71	SLPR. DATA. IN	I	SERIAL/PARALLEL CONVERSION EXPANSION IC
72	CPU RDY/CTS	O	SYS CTL μ-PROCESSOR ↔ LSI COMMUNICATION
73	CPU CLOCK	I	SYS CTL μ-PROCESSOR ↔ LSI SERIAL SLAVE CLOCK
74	CPU DATA OUT	O	SYS CTL μ-PROCESSOR ↔ LSI SERIAL DATA OUTPUT
75	CPU DATA IN	I	SYS CTL μ-PROCESSOR ↔ LSI SERIAL DATA INPUT
76	(CPU ACKI-2)	O	SYS CTL μ-PROCESSOR ↔ LSI COMMUNICATION
77	EDIT.CLOCK	O	SYS CTL μ-PROCESSOR ↔ EDIT MICON SERIAL MASTER CLOCK
78	EDIT. DATA. OUT	O	SYS CTL μ-PROCESSOR ↔ EDIT MICON SERIAL DATA OUTPUT
79	EDIT. DATA. IN	I	SYS CTL μ-PROCESSOR ↔ EDIT MICON SERIAL DATA INPUT
80	—	O	FIX Low OUTPUT
81	SIRIAL.CLOCK	O	TIMER ↔ SYS CTL μ-PROCESSOR MASTER CLOCK
82	S. DATA. OUT	O	TIMER ↔ SYS CTL μ-PROCESSOR SIRIAL DATA OUTPUT
83	S. DATA. IN	I	TIMER ↔ SYS CTL μ-PROCESSOR SIRIAL DATA INPUT
84	VDD	—	POWER
85	GND	—	GND
86	S. DIR	I	S REEL ROTATION DIRECTION DET.
87	T. DIR	I	T REEL ROTATION DIRECTION DET.
88	CAP. DIR	I	CAPSTAN ROTATION DIRECTION DET.
89	CPU WUPI-1	O	SYS CTL μ-PROCESSOR ↔ LSI PROCESSOR COMMUNICATION
90	SSP	I	SECTOR START PULSE INPUT
91	—	I	
92	CYL. ET	O	CYLINDER TORQUE OUTPUT (12bit PWM)
93	CAP. ET	O	CAPSTAN TORQUE OUTPUT (12bit PWM)
94	T. ET	O	T REEL TORQUE OUTPUT (12bit PWM)
95	S. ET	O	S REEL TORQUE OUTPUT (14bit PWM)
96	DRV. CLK	O	CYLINDER DRIVER CLOCK

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
97	MIC. DATA	I/O	MIC SERIAL DATA
98	MIC. CLK	O	MIC SERIAL CLOCK
99	TM1 OKⒽ	O	TIMER SERIAL CLOCK (500μ sec.)
100	SMAIN OKⒽ	O	SYS. CTL MAIN ROUTIN (20msec.)
101	GND	—	GND
102	VDD	—	POWER
103	S. FG1	I	S REEL FG 1
104	S. FG2	I	S REEL FG 2
105	T. FG1	I	T REEL FG 1
106	T. FG2	I	T REEL FG 2
107	CAP. FG1	I	CAPSTAN FG 1
108	CAP. FG2	I	CAPSTAN FG 2
109	LOADⒽ	O	LOADING MOTOR FORWARD OUTPUT
110	UNLOADⒽ	O	LOADING MOTOR REVERSE OUTPUT
111	TRAY LOADⒽ	O	TRAY MOTOR FORWARD OUTPUT
112	TRAY UNLDⒽ	O	TRAY MOTOR REVERSE OUTPUT
113	GND	—	GND
114	TEN V REF	I	INPUT
115	NTSCⓁ	I	NTSC = LOW/PAL = HIGH
116	S. TEST	I	EVR ADJ INPUT
117	—	I	VIA RESISTOR GND
118	—	I	VIA RESISTOR GND
119	—	I	VIA RESISTOR GND
120	TENSION	I	TAPE TENSION A/D INPUT
121	S. PHOTO	I	S PHOTO SENSOR INPUT (BLACK TAPE: L)
122	T. PHOTO	I	T PHOTO SENSOR INPUT (BLACK TAPE: L)
123	DEW. SNS	I	DEW SENSOR INPUT
124	MIC. AD3	I	A/D INPUT 3 FOR MIC
125	MIC. AD2	I	A/D INPUT 2 FOR MIC
126	MIC. AD1	I	A/D INPUT1 FOR MIC

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
127	VDD	—	REF. POWER FOR ANALOG
128	VDD	—	ANALOG POWER
129	VDD	—	POWER FOR BUS
130	GND	—	GND
131	VSYNCⓁ	I	V SYNC INPUT (SYNC EXIST: L)
132	—	O	
133	—	I	GND (VIA 47k Resistor)
134	MIC INⒽ	I	MIC INPUT (MIC IN: H)
135	—	O	FIX Low OUTPUT
136	—	O	FIX Low OUTPUT
137	—	O	FIX Low OUTPUT
138	—	O	FIX Low OUTPUT
139	—	O	
140	—	O	FIX Low OUTPUT
141	—	O	FIX Low OUTPUT
142	—	O	FIX Low OUTPUT
143	—	O	FIX Low OUTPUT
144	—	O	FIX Low OUTPUT
145	—	O	FIX Low OUTPUT
146	—	O	FIX Low OUTPUT
147	—	O	FIX Low OUTPUT
148	—	O	FIX Low OUTPUT
149	—	O	FIX Low OUTPUT
150	—	O	FIX Low OUTPUT
151	—	O	FIX Low OUTPUT
152	—	O	FIX Low OUTPUT
153	—	O	FIX Low OUTPUT
154	—	O	FIX Low OUTPUT
155	GND	—	GND
156	VDD 2	—	GND

LSI/SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (Mini DV : SP MODE)

REF. NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	3.6	3.6	2.7	0	3.6	3.6	0	3.6	0	0	0	0	0	0	3.6	3.6	0	3.6	1.7
PLAY	0	3.6	3.6	2.7	0	3.6	3.6	0	3.6	0	0	0	0	0	0	3.6	0	0	3.6	1.7
REC	0	3.6	3.6	2.7	0	3.6	3.6	0	3.6	0	0	0	0	0	0	3.6	3.6	0	3.6	1.7
F.F	0	3.6	3.5	2.7	0	3.6	3.6	3.6	3.6	0	0	0	0	0	0	3.6	3.6	0	3.6	1.7
REW	0	3.6	3.6	2.6	0	3.6	3.6	0	3.6	0	0	0	0	0	0	0	3.6	0	3.6	1.7

REF. NO.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	1.7	0	0	3.6	0	0	0	0	0	0	0	0	0	3.6	3.3	0	0	0	0	0
PLAY	1.8	0	0	3.6	0	0	0	0	3.6	0	3.6	0	0	3.6	3.3	0	3.6	0	0	0
REC	1.7	0	0	3.6	0	0	0	0	0	0	0	0	0	3.6	3.3	0	0	0	0	0
F.F	1.8	0	0	3.6	0	0	0	0	0	0	0	0	0	3.6	3.3	0	0	0	0	0
REW	1.8	0	0	3.5	0	3.6	0	0	0	0	0	0	0	3.6	3.3	0	0	0	0	0

REF. NO.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	3.6	0	3.6	0	0	3.6	3.6	3.6	3.6	3.6	0	3.6	0	0	0	1.5	1.5	0	1.7	0.2
PLAY	3.6	0	3.6	0	0	3.6	3.6	3.6	3.6	3.6	0	3.6	0	0	0	1.5	1.5	0	1.7	0.2
REC	3.6	0	3.6	0	0	3.6	3.6	3.6	3.6	3.6	0	3.6	0	0	0	1.5	1.5	0	1.7	0.2
F.F	3.6	0	3.6	0	0	3.6	3.6	3.6	3.6	3.6	0	3.6	0	0	0	1.5	1.5	0	1.7	0.2
REW	3.6	0.7	3.6	0	0	3.6	3.6	3.6	3.6	3.6	0	3.6	0	0	0	1.5	1.5	0	1.6	0.2

REF. NO.	IC2001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	1.5	1.5	1.5	0	3.6	0	3.6	3.5	3.3	0.1	3.6	3.6	3.6	1.8	0	3.6	3.5	2.8	0
PLAY	0	1.5	1.5	1.5	0	3.6	0	3.6	3.5	3.3	0.1	3.6	3.6	3.6	1.5	0	3.6	3.5	2.8	0
REC	0	1.5	1.5	1.5	0	3.6	0	3.6	3.5	3.3	0	3.6	3.6	3.6	1.8	0	3.6	3.5	2.8	0
F.F	0	1.5	1.5	1.5	0	3.6	0	3.6	3.5	3.3	0.1	3.6	3.6	3.6	1.8	0	3.6	3.5	2.8	0
REW	0	1.5	1.5	1.5	0	3.6	0	3.6	3.5	3.3	0.1	3.6	3.6	3.6	1.8	0	3.6	3.5	2.8	0.9

REF. NO.	IC2001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	3.6	2.9	2.9	3.6	0	0	0	3.0	0	0	3.6	0	0	1.1	0	1.0	0	3.6	3.6	1.6
PLAY	3.6	3.0	2.9	3.6	0	0	0	3.0	0	0	3.6	0	0	0	1.6	1.0	0	3.6	3.6	1.1
REC	3.6	3.2	2.9	3.6	0	0	0	3.0	0	0	3.6	0	0	1.1	0	0.9	0	3.6	3.6	1.8
F.F	3.6	3.1	2.9	3.5	0	0	0	3.0	0	0	3.6	0	0	1.1	0	1.1	1.0	3.6	3.6	1.8
REW	3.6	3.3	2.9	3.6	0	0	0	3.0	0	0	3.5	0	0	1.1	0	1.0	3.6	3.6	3.6	1.8

REF. NO.	IC2001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	0	3.6	3.6	0	0	0	2.7	3.5	0	0	0	0	0	1.5	1.5	1.5	0	0	0	0
PLAY	0	3.6	3.6	0	0	0	2.7	3.4	0	0	0	0	0	1.1	1.1	1.1	0	0	0	0
REC	0	3.6	3.6	0	0	0	2.7	3.4	0	0	0	0	0	1.7	1.8	1.7	0	0	0	0
F.F	0	3.6	3.6	0	0	0	2.7	3.5	0	0	0	0	0	1.8	1.8	1.8	0	0	0	0
REW	0	3.6	3.6	0	0	0	2.7	3.4	0	0	0	0	0	1.4	1.4	1.5	0	0	0	0

REF. NO.	IC2001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
STOP	0	0	0	0	0	0	3.6	3.6	2.2	0	0	0.7	0	0	0	2.2	2.1	2.2	0.1	0
PLAY	0	0	0	0	0	0	3.6	3.6	2.2	0	0	0.7	0	0	0	2.1	2.2	2.2	0.1	0.1
REC	0	0	0	0	0	0	3.6	3.6	2.2	0	0	0.7	0	0	0	2.2	2.1	2.1	0.1	0.1
F.F	0	0	0	0	0	0	3.6	3.6	2.2	0	0	0.7	0	0	0	2.2	0	0	0.6	0
REW	0	0	0	0	0	0	3.6	3.6	3.6	0	0	0.7	0	0	0	2.2	2.2	2.2	0.1	0

REF. NO.	IC2001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156				
STOP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2				
PLAY	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	2.2				
REC	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	2.2				
F.F	2.2	2.2	2.2	2.2	2.2	2.2	0	2.2	2.2	0	0	0	0	0	0	2.2				
REW	0.1	0	0	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0	0	0	0	2.2				

REF. NO.	IC2002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	9.5	2.4	3.2	0.7	1.0	-2.2	3.2	0	3.2	3.2	0	0	9.5	-9.5	3.2	3.2	-9.5	0.8	0	4.0
PLAY	9.5	2.5	3.3	-0.7	1.0	-2.2	3.3	0	3.3	3.3	0	0	9.5	-9.5	3.3	3.3	-9.5	0.8	0	4.0
REC	9.5	2.5	3.3	-0.7	1.0	-2.2	3.3	0	3.3	3.3	0	0	9.5	-9.5	3.3	3.3	-9.5	0.8	0	4.0
F.F	9.5	2.5	3.3	-0.7	1.0	-2.2	3.3	0	3.3	3.3	0	0	9.5	-9.5	3.3	3.3	-9.5	0.8	0	4.0
REW	9.5	2.5	3.3	-0.7	1.0	-2.2	3.3	0	3.3	3.3	0	0	9.5	-9.5	3.3	3.3	-9.5	0.8	0	4.0

REF. NO.	IC2004																			
MODE	1	2	3	4	5	6	7	8												
STOP	0	3.6	3.6	1.7	0	0	0.6	3.7												
PLAY	0	3.6	3.6	1.6	0	0	0.8	3.7												
REC	0	3.6	3.6	1.7	0	0	0.8	3.6												
F.F	0	3.6	3.6	1.7	0	0	0.9	3.7												
REW	0	3.6	3.6	1.7	0	0	0.8	3.7												

REF. NO.	IC2005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.0	0.8	0	0	3.7	0	3.6	3.7	1.8	1.6	0	0	0	3.7	3.7	0	0	3.7	0	0
PLAY	3.0	0.8	0	0	3.7	0	3.6	3.7	1.8	1.7	0	0	0	3.7	3.7	0	0	3.7	0	0
REC	3.0	0.8	0	0	3.6	0	3.6	3.6	1.8	1.5	0	0	0	3.6	3.6	0	0	3.6	0	0
F.F	3.0	0.8	0	0	3.7	0	3.6	3.7	1.8	1.5	0	0	0	3.7	3.7	0	0	3.7	0	0
REW	3.0	0.8	0	0	3.7	0	3.6	3.7	1.8	1.5	0	0	0	3.7	3.7	0	0	3.7	0	0

REF. NO.	IC2005																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	0	0	0	3.7	0	3.7	3.7	0	0	3.7	3.7	3.7	0	0	0	0	0	0
PLAY	0	0	0	0	0	3.7	0	3.7	3.7	0	0	3.7	3.7	3.7	0	0	0	0	0	0
REC	0	0	0	0	0	3.6	0	3.6	3.6	0	0	3.6	3.6	3.6	0	0	0	0	0	0
F.F	0	0	0	0	0	3.7	0	3.7	3.7	0	0	3.7	3.7	3.6	0	0	0	0	0	0
REW	0	0	0	0	0	3.7	0	3.7	3.7	0	0	3.7	3.7	3.7	0	0	0	0	0	0

REF. NO.	IC2005																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0	0	0	0	0	0	0	3.7	0	3.4	3.7	3.7	0	3.6	3.7	3.3	0	0	0	2.1
PLAY	0.1	0	0	0	0	0	0	3.7	0	3.4	3.7	3.7	0	3.6	3.7	3.3	0	0.1	0	2.1
REC	0	0	0	0	0	0	0	3.6	0	3.4	3.6	3.6	0	3.6	3.6	3.3	0	0	0	2.1
F.F	0	0	0	0	0	0	0	3.7	0	3.4	3.7	3.7	0	3.6	3.7	3.3	0	0	0	2.1
REW	0	0	0	0	0	0	0	3.7	0	3.4	3.7	3.7	0	3.6	3.7	3.3	0	0	0	2.1

REF. NO.	IC2005																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	0	3.7	3.7	0	0	0	0	0	0	0	1.5	0	0	3.5	3.6	0	3.3	0.1
PLAY	0	0	0	3.7	3.7	0	0	0	0	0	0	0.1	1.5	0	0	3.5	3.6	0	3.3	0.1
REC	0	0	0	3.6	3.6	0	0	0	0	0	0	0	1.5	0	0	3.5	3.6	0	3.3	0.1
F.F	0	0	0	3.7	3.7	0	0	0	0	0	0	0	1.5	0	0	3.5	3.6	0	3.3	0.1
REW	0	0	0	3.7	3.7	0	0	0	0	0	0	0	1.5	0	0	3.5	3.6	0	3.3	0.1

REF. NO.	IC2006																			
MODE	1	2	3	4	5															
STOP	3.7	0	1.2	3.3	5.2															
PLAY	3.7	0	1.2	3.3	5.1															
REC	3.7	0	1.2	3.3	5.1															
F.F	3.7	0	1.2	3.3	5.1															
REW	3.7	0	1.2	3.3	5.1															

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	2.7	0	0	3.6	0	3.6	0	0	0	0	3.6	3.6	3.6	0	0	3.6	1.8
PLAY	0	0	0	2.7	0	0	3.6	0	3.6	3.6	0	0	3.6	3.6	3.6	3.6	0	0	3.6	1.8
REC	0	0	0	2.6	0	0	3.6	0	3.6	0	0	3.6	3.6	0	3.6	3.6	0	0	3.6	1.8
F.F	0	0	0	2.7	0	0	3.6	0	3.6	0	0	0	3.6	3.6	3.6	3.6	0	0	3.6	1.8
REW	0	0	0	2.6	0	0	3.6	0	3.6	0	0	0	0	3.6	3.6	3.6	0	0	3.6	1.8

REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	1.8	0	0	3.6	0.1	0	0	0	0	0	0	3.6	0	0	0	0	0	0	3.6	0
PLAY	1.7	0	0	3.6	0.1	0	0	3.6	0	0	0	3.6	0	0	0	0	3.6	3.6	3.6	0
REC	1.8	0	0	3.6	0.1	0	0	3.6	0	0	0	3.6	0	0	0	0	3.6	3.6	3.6	0
F.F	1.2	0	0	3.6	0.1	0	0	0	0	0	0	3.6	0	0	0	0	3.6	3.6	3.6	0
REW	1.7	0	0	3.6	0.1	0	0	0	0	0	0	3.6	0	0	0	0	3.6	3.6	3.6	3.6

REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	3.6	0	3.6	3.6	0	0	0	0	3.6	3.6	1.8	3.6	0	3.4	0	1.5	0	0	3.3	3.3
PLAY	3.6	0	3.6	3.6	0.5	0.4	0.4	0.4	3.6	0	0	3.6	0	0	1.7	1.8	1.5	1.6	1.7	1.7
REC	3.6	0	3.6	3.6	0.4	0.3	0.4	0.4	3.6	0	0	3.6	0	1.7	1.8	1.5	1.5	1.6	1.7	1.7
F.F	3.6	0	3.6	3.6	0.4	0.4	0.4	0.4	3.6	1.8	1.8	3.6	0	1.7	0	1.5	1.5	0	1.6	1.6
REW	3.6	0	3.6	3.6	3.6	0.3	0.4	0.4	3.6	0	1.8	3.6	0	1.7	0	1.5	1.5	0	1.6	1.6

REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	0	1.5	0	3.6	0	0	3.6	0	3.7	3.6	3.6	3.6	3.6	0	3.6	3.6	3.7	0
PLAY	0	0	0	1.5	0	3.6	0	0	3.3	1.0	3.3	3.6	3.6	1.5	3.6	0	3.3	2.9	3.6	0
REC	0	0	0	1.5	1.5	3.6	0	0	3.3	1.0	3.2	3.6	3.6	1.8	3.6	0	3.3	2.8	3.6	0
F.F	0	0	0	1.5	0	3.6	0	0	3.3	3.3	3.3	3.6	3.6	3.6	3.6	0	2.8	2.8	3.6	0
REW	0	0	0	1.5	0	3.6	0	0	3.3	1.0	3.3	3.6	1.1	3.6	2.6	0	3.3	2.8	3.6	0

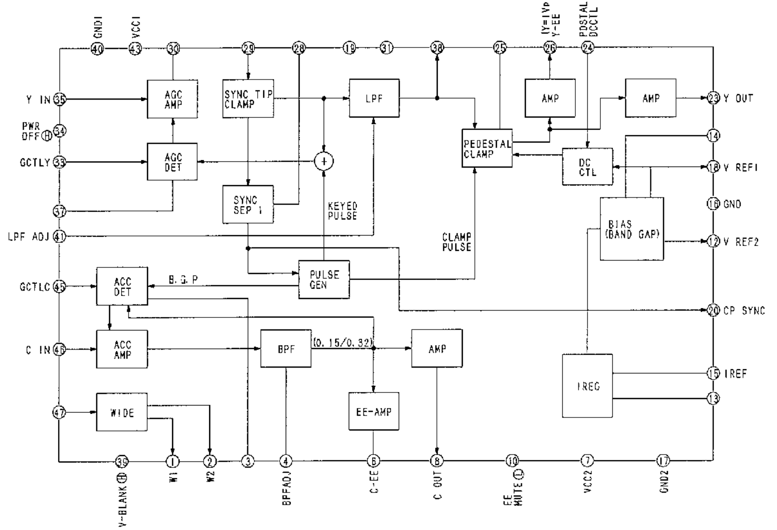
REF. NO.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	3.6	3.6	3.7	3.6	0	3.7	3.7	3.7	3.7	0	0	0	3.6	1.8	0	1.8	3.7	3.7	0	3.6
PLAY	3.1	3.0	3.5	3.6	0	0	0	3.7	0	0	0	1.9	1.6	0.3	0.1	1.8	3.7	3.7	0.1	1.8
REC	3.1	3.0	3.5	3.6	0	0	0	3.6	3.6	0	0	0	1.9	0.2	0.1	1.8	3.6	3.7	3.7	1.8
F.F	3.1	3.1	3.5	3.6	0	0	0	0	0	0	0	1.9	1.8	0.7	0	1.8	3.6	3.7	0.1	1.8
REW	3.1	3.0	3.5	3.6	0	3.7	3.7	3.7	0	0	0	1.9	1.8	0	0.4	1.8	3.7	3.7	0.1	1.8

REF. NO.	IC6001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	0	0	3.6	3.3	0	3.3	0	0	0	0	0	0	0	1.8	3.6	3.6	0	0	0	3.3
PLAY	0	3.6	1.6	1.7	1.6	1.6	1.6	1.6	0	0	0	0	0	1.8	3.6	3.6	0	0	0	2.7
REC	0	3.6	1.7	1.6	1.6	1.7	1.6	1.6	0	0	0	0	0	1.8	3.6	3.6	0	0	0	2.7
F.F	0	3.6	1.6	1.6	1.6	1.6	0	3.3	0	0	0	0	0	1.8	3.6	3.6	0	0	0	2.1
REW	0	3.6	1.6	1.6	1.6	1.6	2.9	3.3	0	0	0	0	0	1.8	3.6	3.6	0	0	0	1.0
REF. NO.	IC6001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
STOP	0	0	0	3.7	3.7	3.7	3.6	3.6	3.6	0	0	2.5	2.2	0	3.0	3.6	3.6	3.6	1.7	1.7
PLAY	0.1	0.1	0.1	3.7	3.7	3.7	3.6	3.6	3.6	0	0	2.3	0	0	0	3.6	3.6	3.6	1.6	1.6
REC	0	0	0	3.7	3.7	3.7	3.6	3.6	3.6	0	0	2.2	0	0	0	3.6	3.6	3.6	1.7	1.7
F.F	0.1	0	0	3.7	3.7	3.7	3.6	3.6	3.6	0	0	2.2	0	0	0	3.6	3.6	3.6	1.6	1.6
REW	0.1	0.1	0	3.7	3.7	3.7	3.6	3.6	3.6	0	0	2.2	0	0	0	3.6	3.6	3.6	1.7	1.6
REF. NO.	IC6001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156				
STOP	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0	3.6				
PLAY	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.5	1.5	1.6	1.6	0	3.6				
REC	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0	3.6				
F.F	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.7	1.7	1.7	1.6	0	3.6				
REW	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0	3.6				
REF. NO.	IC6002																			
MODE	1	2	3	4	5															
STOP	2.7	3.6	0	0	3.4															
PLAY	2.7	3.6	0	0	3.4															
REC	2.7	3.6	0	0	3.4															
F.F	2.7	3.6	0	0.9	3.4															
REW	2.7	3.6	0	0.9	3.4															
REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	3.7	0	0	0	3.3	0	0	0	3.3	0	3.3	0	3.7	3.7						
PLAY	0	3.7	1.7	0	1.6	0	0	0	1.6	0	1.6	3.7	0	3.7						
REC	0	3.7	1.6	0	1.6	0	0	0	1.6	0	1.6	3.7	0	3.7						
F.F	0	3.7	1.5	0	1.5	0	0	0	1.5	0	1.6	3.7	0	3.7						
REW	3.7	0	1.5	0	1.5	0	0	0	1.6	0	1.6	0	3.7	3.7						
REF. NO.	IC6004										IC6005									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5					
STOP	0	0	0	0	3.6	3.7	3.7	3.7			0	0	0	0	3.7					
PLAY	1.6	1.6	0	0	3.7	3.7	3.7	3.7			1.6	1.6	0	1.8	3.7					
REC	1.6	1.6	0	0	3.7	3.7	3.7	3.7			1.6	1.6	0	1.8	3.7					
F.F	3.3	0	3.7	0	0	3.7	3.7	3.7			0	0	0	0	3.7					
REW	0	3.3	0	0	3.7	3.7	3.7	3.7			0	3.3	0	3.7	3.7					
REF. NO.	IC6006																			
MODE	1	2	3	4	5	6	7	8												
STOP	1.8	1.8	1.8	0	0	0	0	3.6												
PLAY	1.8	1.8	1.8	0	0	0	0	3.6												
REC	1.8	1.8	1.8	0	0	0	0	3.6												
F.F	1.8	1.8	1.8	0	0	0	0	3.6												
REW	1.8	1.8	1.8	0	0	0	0	3.6												

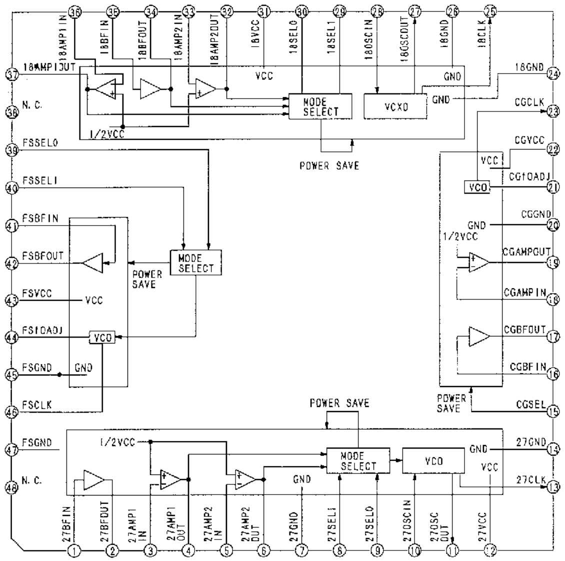
LSI/SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (Mini DV : SP MODE)

REF. NO.	Q6001																	
MODE	E	C	B															
STOP	3.7	3.7	3.6															
PLAY	3.7	3.7	3.6															
REC	3.7	3.7	3.6															
F.F	3.7	3.7	3.6															
REW	3.6	3.7	3.6															
REF. NO.	QR2001			QR6001														
MODE	E	C	B	E	C	B												
STOP	3.7	0	3.6	0	3.4	0												
PLAY	3.7	0	3.6	0	3.4	0												
REC	3.7	0	3.6	0	3.4	0												
F.F	3.7	0	3.6	0	3.4	0												
REW	3.7	0	3.6	0	3.4	0												

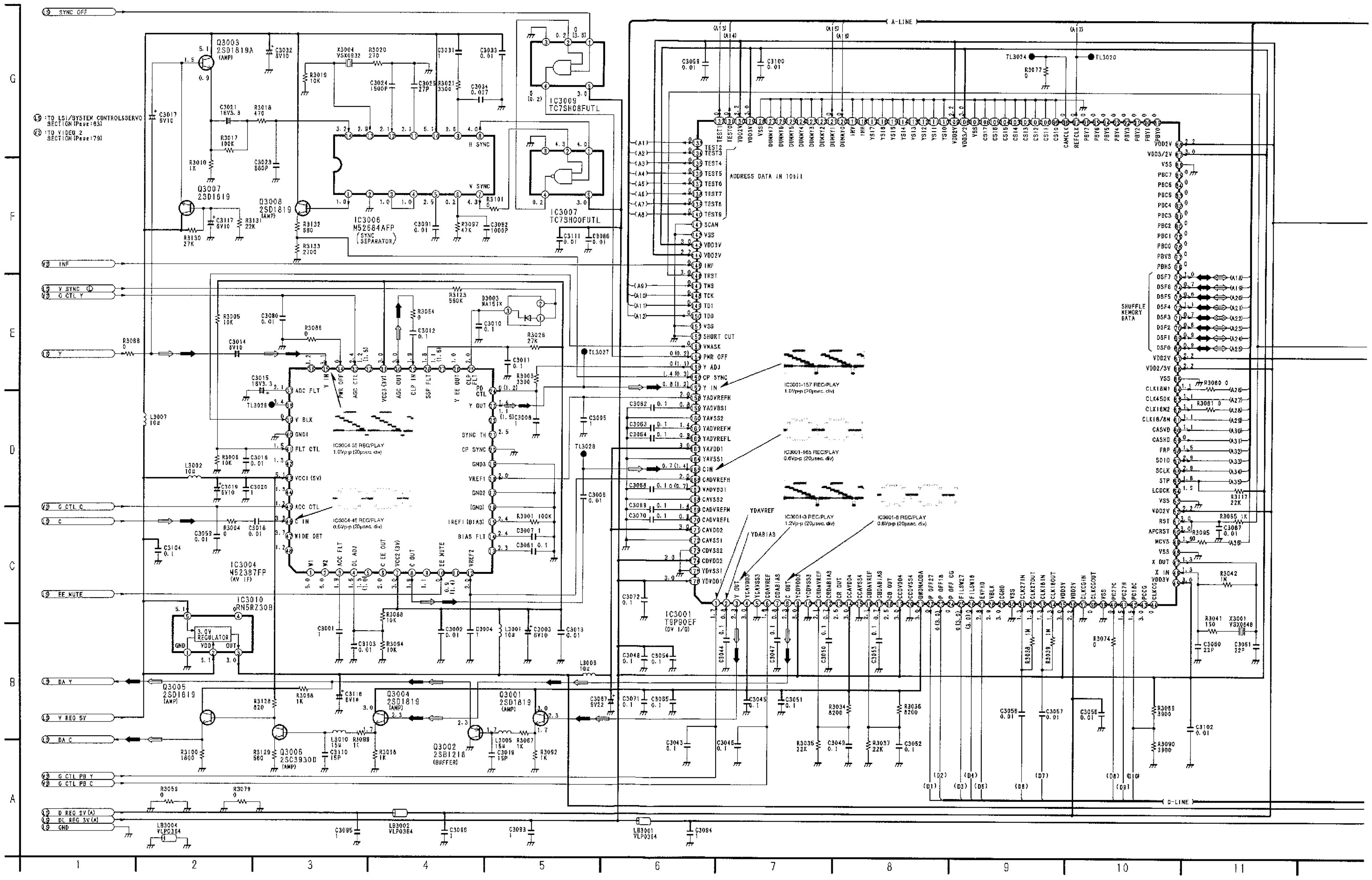
IC3004
M52387FP


GND1
VCC1
(Y=1Vpp)
Y-EE
POSTAL
DCCTL
Y IN
PWR OFF Ⓗ
GCTLY
LPF ADJ
GCTLC
C IN
AGC AMP
AGC DET
SYNC TIP CLAMP
SYNC SEP 1
KEYED PULSE
LPF
PEDESTAL CLAMP
AMP
AMP
DC CTL
BIAS (BAND GAP)
CLAMP PULSE
PULSE GEN
B. G. P
ACC DET
ACC AMP
BPF
(0.15/0.32)
AMP
EE-AMP
WIDE
IREG
Y OUT
V REF1
GND
V REF2
CP SYNC
IREF
V-BLANK Ⓗ
W1
W2
BPFADJ
C-EE
C OUT
EE MUTE Ⓛ
VCC2
GND2
40
43
30
29
28
19
31
38
25
26
24
35
34
33
37
41
45
46
47
23
14
18
16
12
20
15
13
39
1
2
3
4
6
8
10
7
17

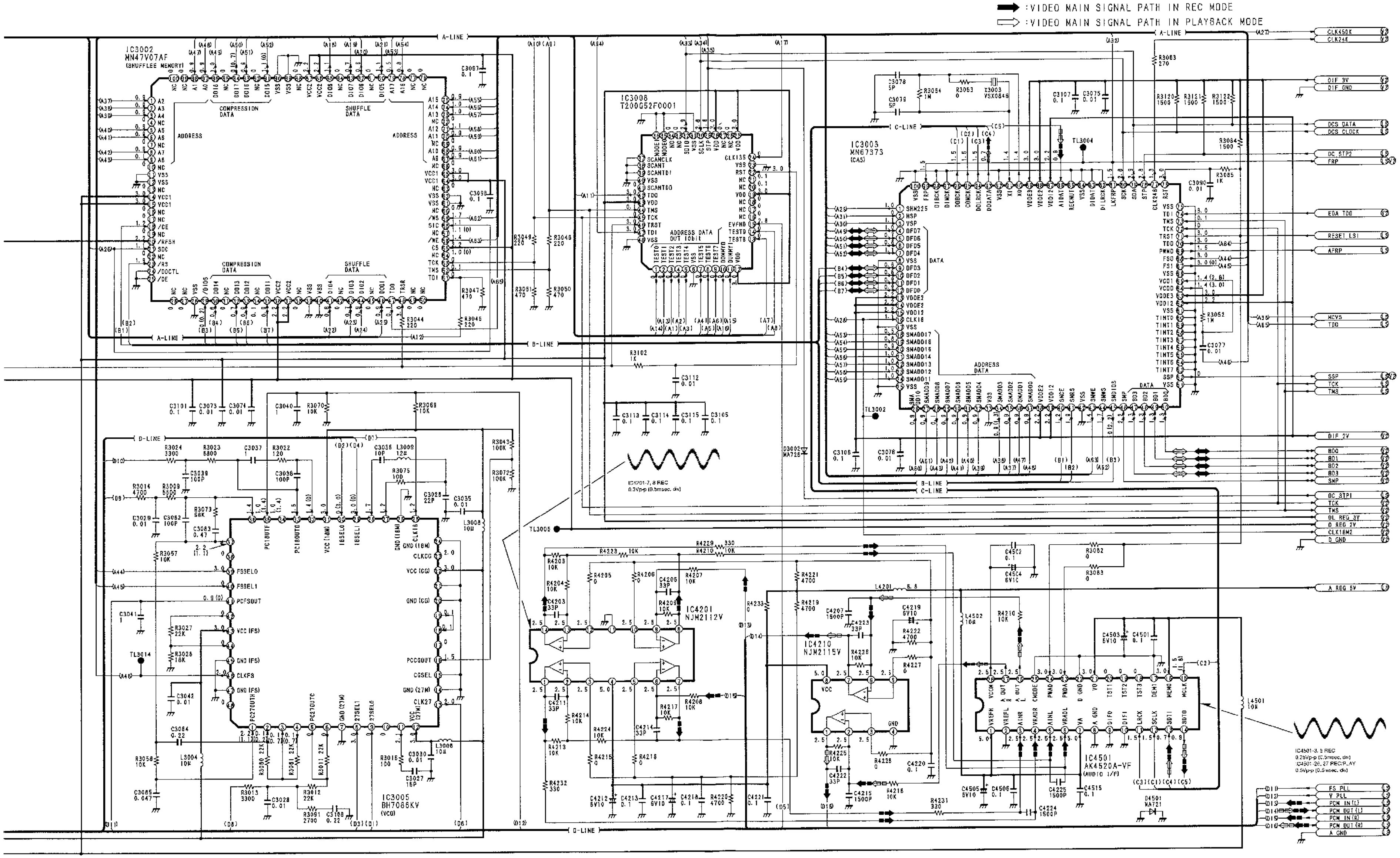
IC3005
BH7086KV


18AMP1IN
18BFIN
18BFOUT
18AMP2IN
18AMP2OUT
18VCC
18SEL0
18SEL1
18OSCIN
18OSCOUT
18GND
18CLK
18AMP1OUT
N. C.
FSSEL0
FSSEL1
FSBFIN
FSBFOUT
FSVCC
FSf0ADJ
FSGND
FSCLK
FSGND
N. C.
VCC
GND
GND
MODE SELECT
VCXO
1/2VCC
POWER SAVE
18GND
CGCLK
CGVCC
VCC
CGf0ADJ
VCO
CGGND
GND
1/2VCC
CGAMPOUT
CGAMPIN
CGBFOUT
CGBFIN
POWER SAVE
CGSEL
MODE SELECT
POWER SAVE
VCC
VCO
GND
POWER SAVE
1/2VCC
MODE SELECT
VCO
GND
VCC
GND
27GND
27CLK
27BFIN
27BFOUT
27AMP1 IN
27AMP1 OUT
27AMP2 IN
27AMP2 OUT
27GND
27SEL1
27SEL0
27OSCIN
27OSC OUT
27VCC
36
35
34
33
32
31
30
29
28
27
26
25
37
38
39
40
41
42
43
44
45
46
47
48
24
23
22
21
20
19
18
17
16
15
14
13
1
2
3
4
5
6
7
8
9
10
11
12

3-22. VIDEO 1 SECTION IN DIGITAL SCHEMATIC DIAGRAM



SYNC OFF
TO LSI/SYSTEM CONTROL&SERVO SECTION (Page:83)
TO VIDEO 2 SECTION (Page:79)
INF
V SYNC
G CTL Y
Y
G CTL C
C
EE MUTE
DA Y
V REG 5V
DA C
G CTL PB Y
G CTL PB C
D REG 2V (A)
DL REG 3V (A)
GND
Q3003 2SD1819A (AMP)
Q3007 2SD1819
Q3008 2SD1819 (AMP)
IC3006 M52684AFP (SYNC SEPARATOR)
H SYNC
V SYNC
IC3009 TC7SH08FUTL
IC3007 TC7SH00FUTL
IC3004 M52387FP (AV IF)
IC3010 RN5RZ30B
3.0V REGULATOR
Q3005 2SD1819 (AMP)
Q3006 2SC3930D (AMP)
Q3004 2SD1819 (AMP)
Q3002 2SB1218 (BUFFER)
Q3001 2SD1819 (AMP)
IC3001 TSP90EF (DV I/O)
A-LINE
D-LINE
ADDRESS DATA IN 10bit
SHUFFLE MEMORY DATA
TL3024
TL3020
TL3027
TL3028
TL3025
IC3001-157 REC/PLAY 1.0Vp-p (20μsec. div)
IC3001-165 REC/PLAY 0.6Vp-p (20μsec. div)
IC3001-3 REC/PLAY 1.2Vp-p (20μsec. div)
IC3001-8 REC/PLAY 0.6Vp-p (20μsec. div)
IC3004-55 REC/PLAY 1.0Vp-p (20μsec. div)
IC3004-45 REC/PLAY 0.6Vp-p (20μsec. div)
YDAVREF
YDABIAS
A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
10
11

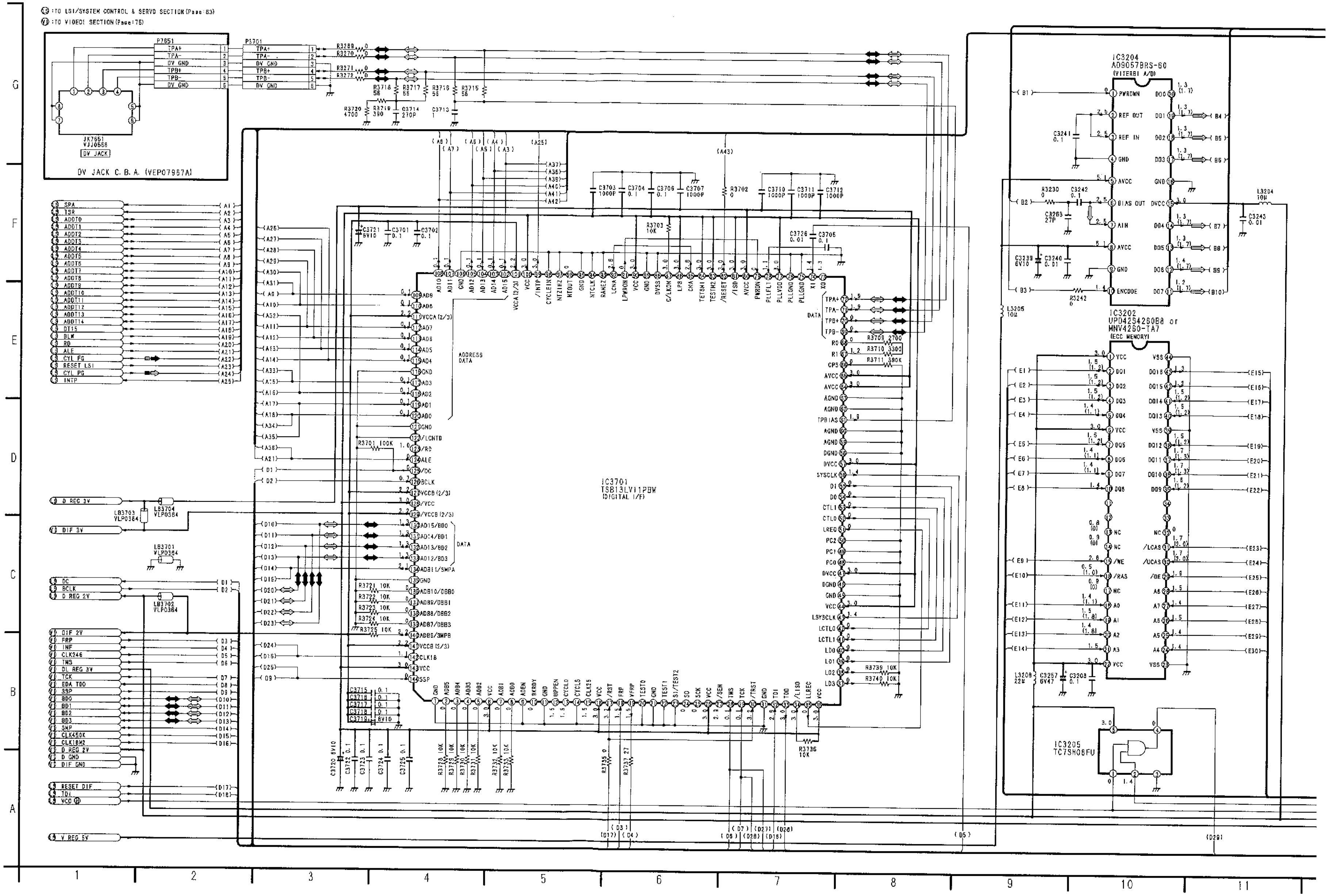

:VIDEO MAIN SIGNAL PATH IN REC MODE
:VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
IC3002
MN47V07AF
(SHUFFLEE MEMORY)
ADDRESS
COMPRESSION DATA
SHUFFLE DATA
IC3008
T200G52F0001
ADDRESS DATA OUT 10BIT
IC3003
MN67373
(CAS)
ADDRESS DATA
DATA
IC3005
BH7086KV
(VCO)
IC4201
NJM2112V
IC4210
NJM2115V
IC4501
AK4520A-VF
(AUDIO I/F)
IC1201-7, 8 REC
0.5Vp-p (0.5msec. div)
IC4501-3, 5 REC
0.25Vp-p (0.5msec. div)
IC4501-26, 27 PB/PLAY
0.5Vp-p (0.5msec. div)
A-LINE
B-LINE
C-LINE
D-LINE
CLK450K
CLK24E
DIF 3V
DIF GND
DCS DATA
DCS CLOCK
DC STP2
FRP
EOA TDO
RESET LSI
AFRP
HCVS
TDO
SSP
TCK
TMS
DIF 2V
BD0
BD1
BD2
BD3
SHP
DC STP1
TCK
TMS
DL REG 3V
D REG 3V
CLK18M2
D GND
A REG 5V
FS PLL
V PLL
PCM IN (L)
PCM OUT (L)
PCM IN (R)
PCM OUT (R)
A GND
TL3002
TL3004
TL3005
TL3014
D3002
MA728
D4501
MA721
X3003
VSX0846
12
13
14
15
16
17
18
19
20
21
22

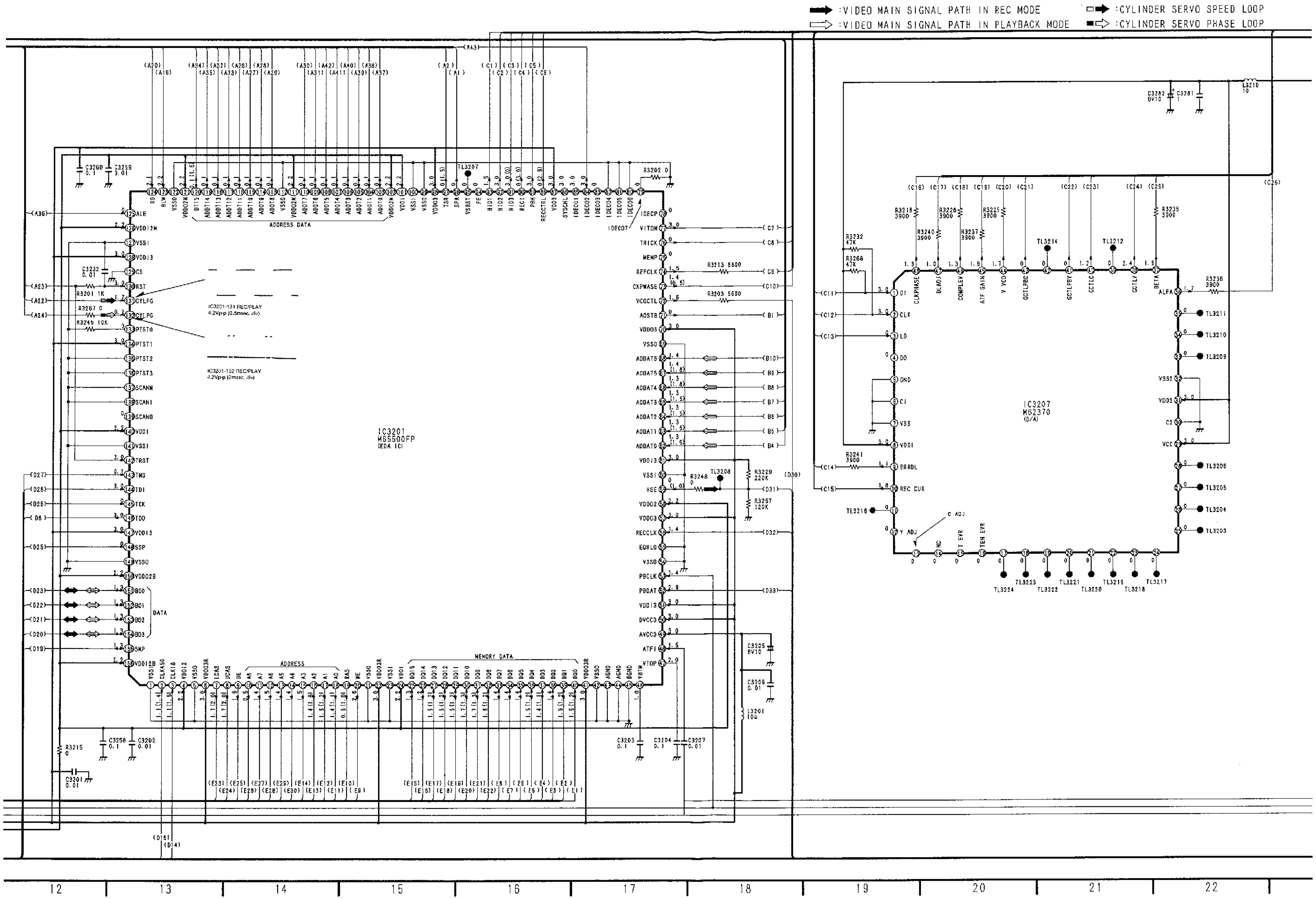
NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS(   )ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

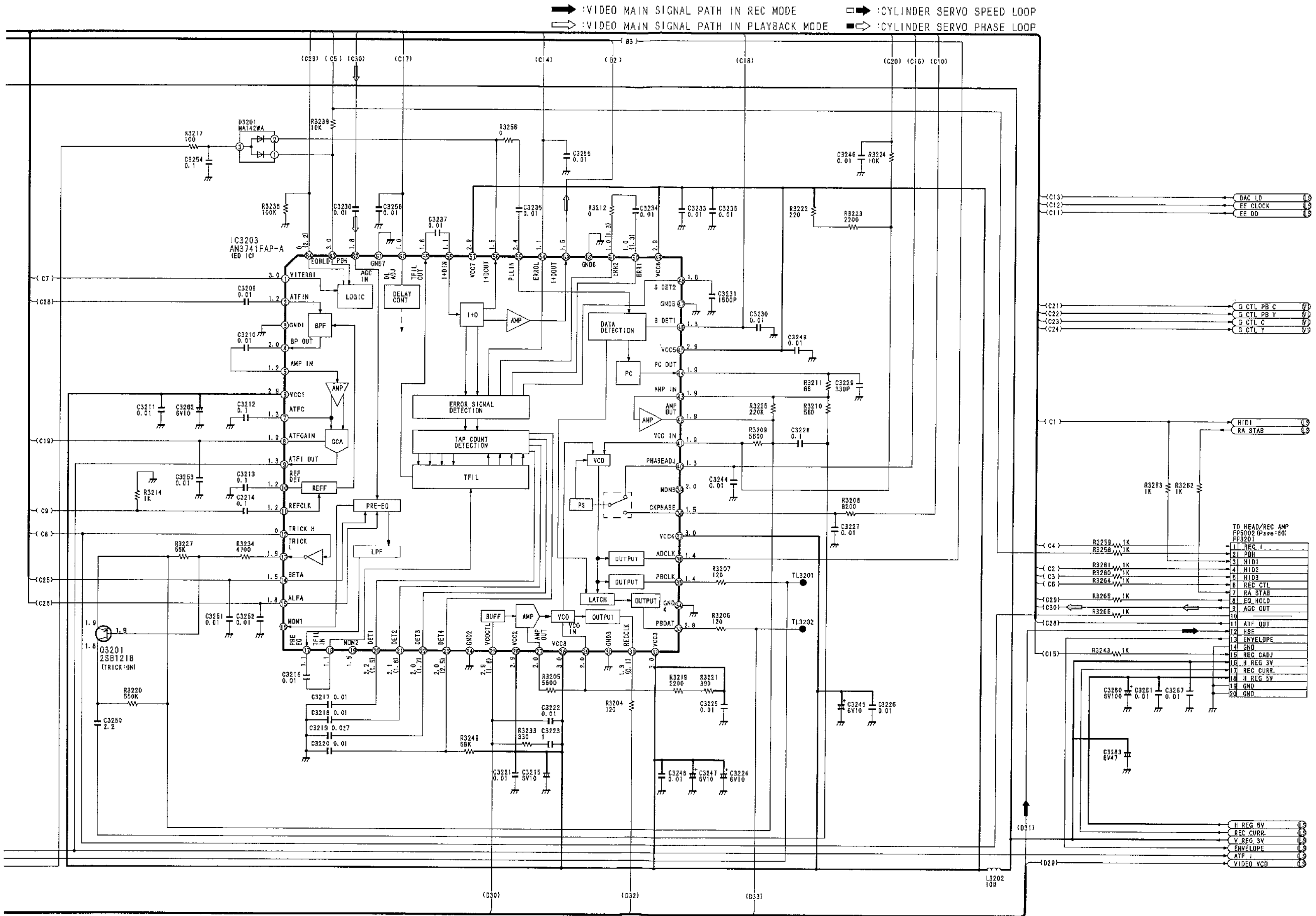
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-23. VIDEO 2 SECTION IN DIGITAL, DV JACK SCHEMATIC DIAGRAMS


LS :TO LSI/SYSTEM CONTROL & SERVO SECTION (Page:63)
VI :TO VIDEO1 SECTION (Page:75)
P7651
TPA+
TPA-
DV GND
TPB+
TPB-
DV GND
P3701
JK7651
VJJ0568
DV JACK
DV JACK C. B. A. (VEP07957A)
SPA
TSR
ADDT0
ADDT1
ADDT2
ADDT3
ADDT4
ADDT5
ADDT6
ADDT7
ADDT8
ADDT9
ADDT10
ADDT11
ADDT12
ADDT13
ADDT14
DT15
BLM
RD
ALE
CYL FG
RESET LSI
CYL PG
INTP
D REG 3V
DIF 3V
LB3703
VLP0364
LB3704
VLP0364
LB3701
VLP0364
LB3702
VLP0364
DC
BCLK
D REG 2V
DIF 2V
FRP
INF
CLK246
TNS
DL REG 3V
TCK
EDA TDO
3SP
BD0
BD1
BD2
BD3
SNP
CLK450K
CLK18M2
D REG 2V
D GND
DIF GND
RESET DIF
TDI
VCO
V REG 5V
IC3701
TSB13LV11PBW
(DIGITAL I/F)
ADDRESS
DATA
DATA
IC3204
AD9057BRS-60
(VITERBI A/D)
PWRDWN
REF OUT
REF IN
GND
AVCC
BIAS OUT
AIN
ENCODE
DVCC
IC3202
UPD4254260BB or
MNV4260-TA7
(ECC MEMORY)
IC3205
TC7SH08FU
L3204
10μ
L3205
10μ
L3208
22μ
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11


:VIDEO MAIN SIGNAL PATH IN REC MODE
:VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
:CYLINDER SERVO SPEED LOOP
:CYLINDER SERVO PHASE LOOP
IC3201
M65500FP
(EDA IC)
IC3207
M62370
(D/A)
ADDRESS DATA
ADDRESS
MEMORY DATA
DATA
IC3201-131 REC/PLAY
4.2Vp-p (0.5msec. div)
IC3201-132 REC/PLAY
4.2Vp-p (2msec. div)
C ADJ
12
13
14
15
16
17
18
19
20
21
22


➡ :VIDEO MAIN SIGNAL PATH IN REC MODE
⇨ :VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
□➡ :CYLINDER SERVO SPEED LOOP
■⇨ :CYLINDER SERVO PHASE LOOP
IC3203
AN3741FAP-A
(EQ IC)
VITERBI
ATFIN
GND1
SP OUT
AMP IN
VCC1
ATFC
ATFGAIN
ATFI OUT
REF DET
REFCLK
TRICK H
TRICK L
BETA
ALFA
MON1
PRE EQ
TFIL IN
MON2
DET1
DET2
DET3
DET4
GND2
VCOCTL
VCC2
AMP OUT
VCC8
GND3
RECCLK
VCC3
PBDAT
GND4
PBCLK
ADCLK
VCC4
CKPHASE
MON3
PHASEADJ
VCC IN
AMP OUT
AMP IN
PC OUT
VCC5
S DET1
GND5
S DET2
VCC6
ERR1
ERR2
GND6
I+DOUT
ERROL
PLLIN
I+DOUT
VCC7
I+DIN
TFIL OUT
DL ADJ
GND7
AGC IN
PBH
EQHLD
LOGIC
BPF
AMP
GCA
REFF
TRICK
PRE-EQ
LPF
DELAY CONT
I+D
AMP
ERROR SIGNAL DETECTION
TAP COUNT DETECTION
TFIL
DATA DETECTION
PC
AMP
VCO
PS
OUTPUT
OUTPUT
LATCH
OUTPUT
OUTPUT
VCO
AMP
BUFF
D3201
MA142WA
R3217
100
C3254
0.1
R3239
10K
R3256
0
C3255
0.01
R3235
100K
C3238
0.01
C3256
0.01
C3237
0.01
C3235
0.01
R3212
0
C3234
0.01
C3233
0.01
C3236
0.01
C3246
0.01
R3224
10K
R3222
220
R3223
2200
C3209
0.01
C3210
0.01
C3211
0.01
C3202
6V10
C3212
0.1
C3253
0.01
C3213
0.1
C3214
0.1
R3214
1K
R3227
56K
R3234
4700
C3251
0.01
C3252
0.01
Q3201
2SB1218
(TRICK:ON)
R3220
560K
C3250
2.2
C3216
0.01
C3217 0.01
C3218 0.01
C3219 0.027
C3220 0.01
R3249
68K
C3221
0.01
C3215
6V10
R3233
330
C3223
1
C3222
0.01
R3205
5600
R3204
120
R3219
2200
R3221
390
C3225
0.01
C3248
0.01
C3247
6V10
C3224
6V10
C3245
6V10
C3226
0.01
C3231
1500P
C3230
0.01
C3249
0.01
R3211
68
C3229
330P
R3226
220K
R3210
560
R3209
5600
C3228
0.1
C3244
0.01
R3208
8200
C3227
0.01
R3207
120
TL3201
R3206
120
TL3202
L3202
10µ
(C29) (C5) (C30) (C17) (C14) (B2) (B3) (C18) (C20) (C16) (C10)
(C7) (C28) (C19) (C9) (C8) (C25) (C28)
(D30) (D32) (D33) (D31) (D29)
(C13) (C12) (C11)
DAC LD
EE CLOCK
EE DO
(C21) (C22) (C23) (C24)
G CTL PB C
G CTL PB Y
G CTL C
G CTL Y
(C1)
HID1
RA STAB
R3263
1K
R3262
1K
TO HEAD/REC AMP
FP5002 (Page:60)
FP3201
(C4) R3259 1K
R3258 1K
(C2) R3261 1K
(C3) R3260 1K
(C6) R3264 1K
(C29) R3265 1K
(C30)
R3266 1K
(C28)
(C15) R3243 1K
1 REC I
2 PBH
3 HID1
4 HID2
5 HID3
6 REC CTL
7 RA STAB
8 EQ HOLD
9 AGC OUT
10
11 ATF OUT
12 HSE
13 ENVELOPE
14 GND
15 REC CADJ
16 H REG 3V
17 REC CURR.
18 H REG 5V
19 GND
20 GND
C3280
6V100
C3261
0.01
C3267
0.01
C3283
6V47
H REG 5V
REC CURR.
V REG 3V
ENVELOPE
ATF I
VIDEO VCO

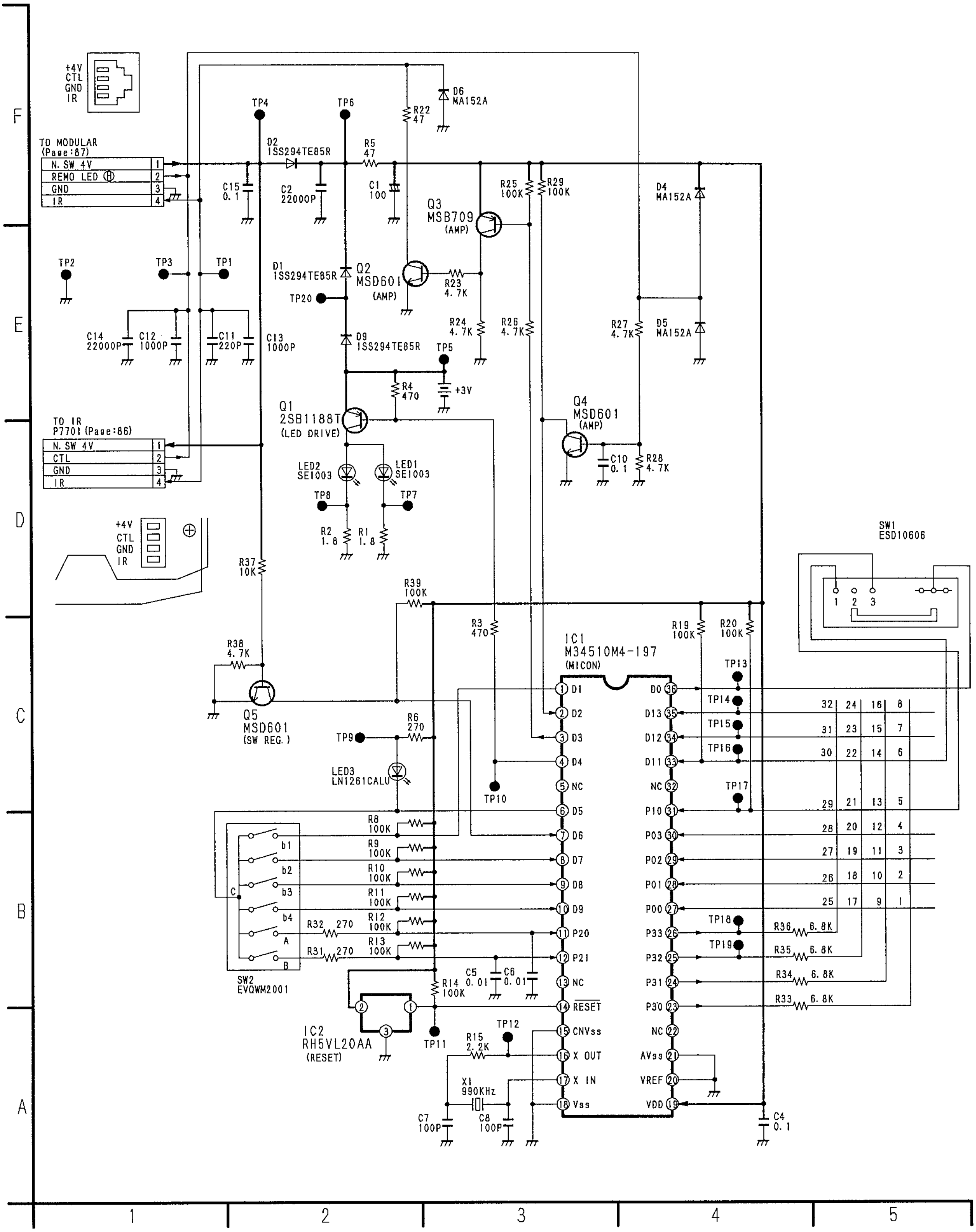
NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE)

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

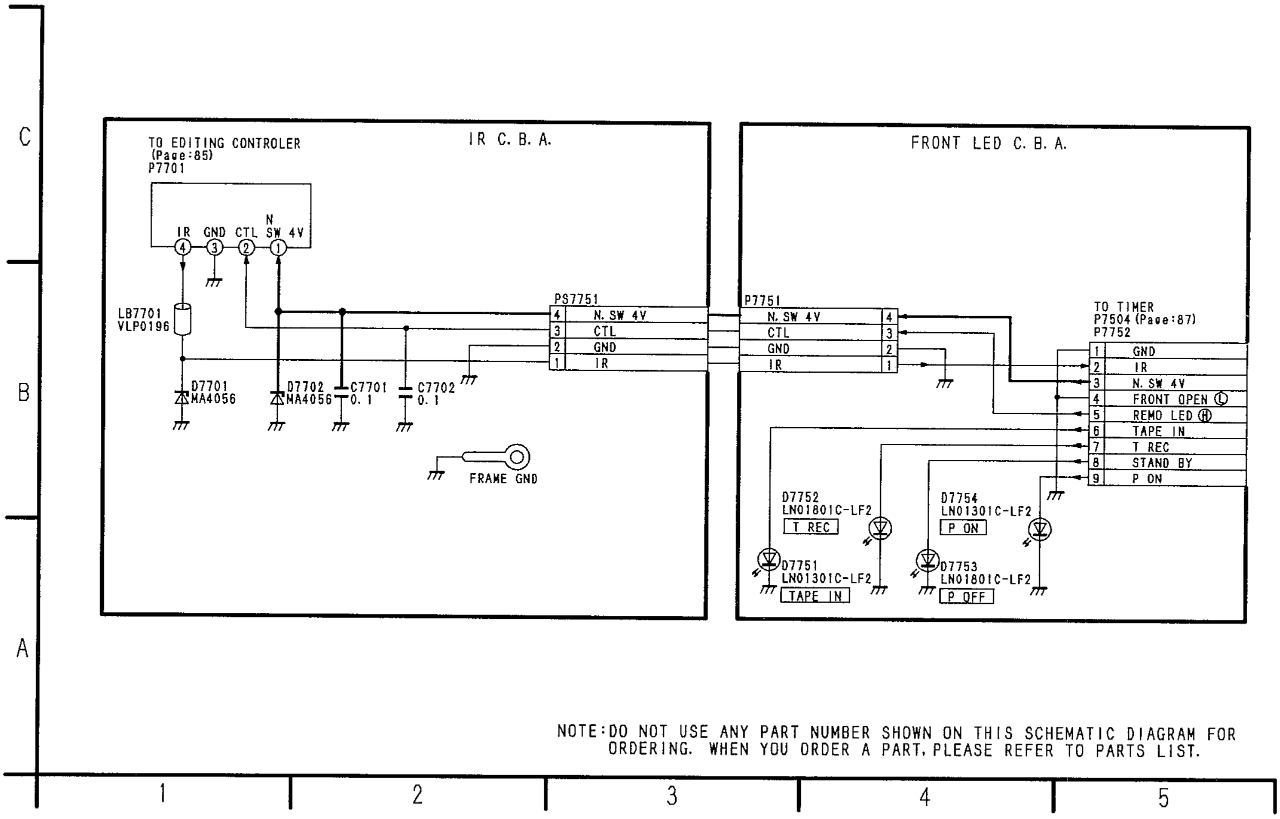
23 24 25 26 27 28 29 30 31 32 33

3-24. EDITING CONTROLLER SCHEMATIC DIAGRAM



F
E
D
C
B
A
1
2
3
4
5
+4V
CTL
GND
IR
TO MODULAR
(Page:87)
N. SW 4V
REMO LED Ⓗ
GND
IR
1
2
3
4
TP4
TP6
D2
1SS294TE85R
R5
47
R22
47
D6
MA152A
C15
0.1
C2
22000P
C1
100
R25
100K
R29
100K
D4
MA152A
Q3
MSB709
(AMP)
TP2
TP3
TP1
D1
1SS294TE85R
Q2
MSD601
(AMP)
R23
4.7K
TP20
C14
22000P
C12
1000P
C11
220P
C13
1000P
D9
1SS294TE85R
TP5
R24
4.7K
R26
4.7K
R27
4.7K
D5
MA152A
R4
470
+3V
Q1
2SB1188T
(LED DRIVE)
Q4
MSD601
(AMP)
C10
0.1
R28
4.7K
TO IR
P7701 (Page:86)
N. SW 4V
CTL
GND
IR
LED2
SE1003
LED1
SE1003
TP8
TP7
R2
1.8
R1
1.8
+4V
CTL
GND
IR
SW1
ESD10606
1 2 3
R37
10K
R39
100K
R3
470
R19
100K
R20
100K
IC1
M34510M4-197
(MICON)
TP13
R38
4.7K
Q5
MSD601
(SW REG.)
R6
270
TP9
LED3
LN1261CALU
TP10
TP14
TP15
TP16
TP17
1 D1
2 D2
3 D3
4 D4
5 NC
6 D5
7 D6
8 D7
9 D8
10 D9
11 P20
12 P21
13 NC
14 RESET
15 CNVss
16 X OUT
17 X IN
18 Vss
D0 36
D13 35
D12 34
D11 33
NC 32
P10 31
P03 30
P02 29
P01 28
P00 27
P33 26
P32 25
P31 24
P30 23
NC 22
AVss 21
VREF 20
VDD 19
32 24 16 8
31 23 15 7
30 22 14 6
29 21 13 5
28 20 12 4
27 19 11 3
26 18 10 2
25 17 9 1
R8
100K
R9
100K
R10
100K
R11
100K
R12
100K
R13
100K
b1
b2
b3
b4
A
B
C
R32 270
R31 270
SW2
EVQWM2001
C5
0.01
C6
0.01
R14
100K
TP18
TP19
R36 6.8K
R35 6.8K
R34 6.8K
R33 6.8K
IC2
RH5VL20AA
(RESET)
TP11
TP12
R15
2.2K
X1
990KHz
C7
100P
C8
100P
C4
0.1

3-25. IR, FRONT LED SCHEMATIC DIAGRAMS

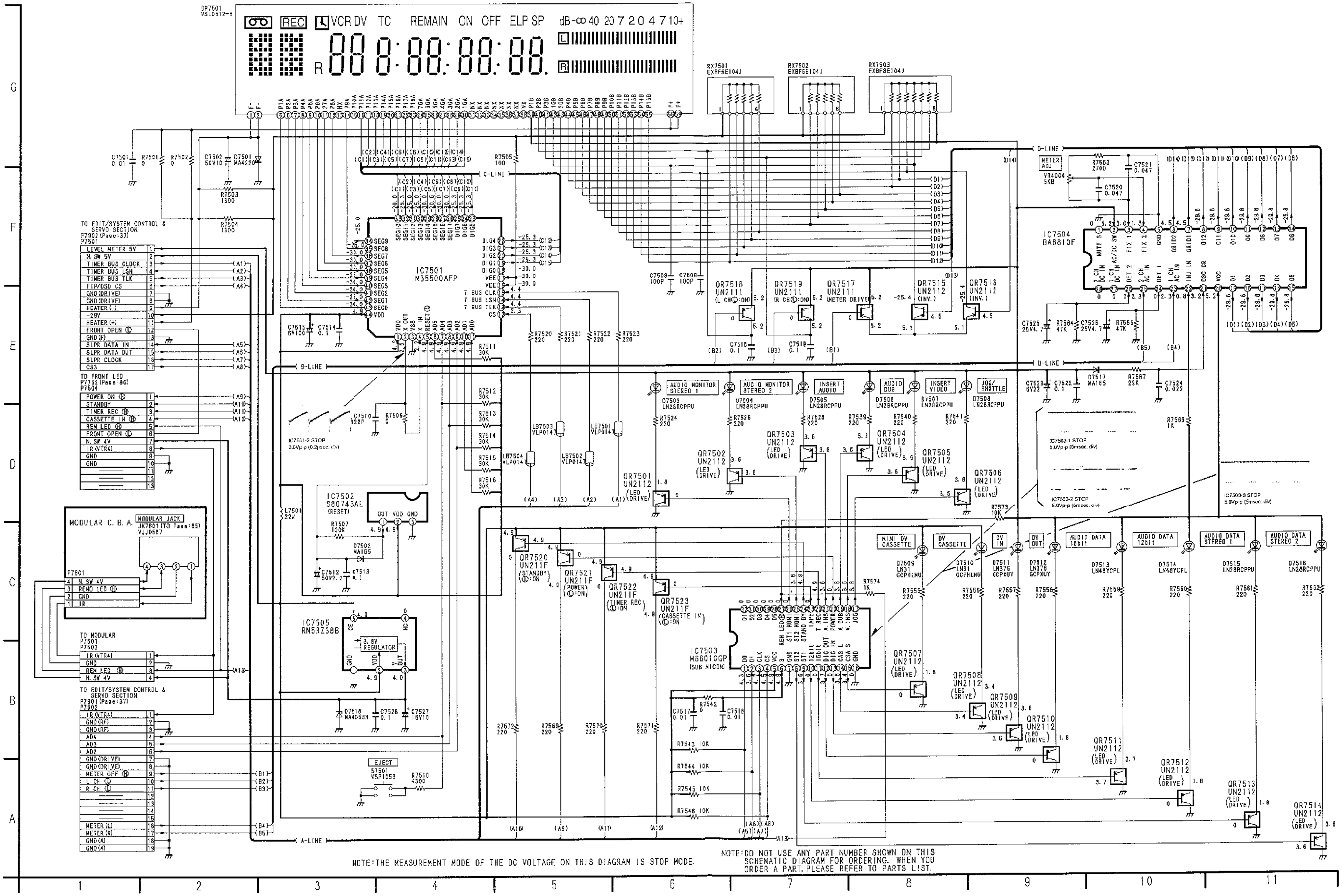

C
B
A
1
2
3
4
5
IR C. B. A.
TO EDITING CONTROLER
(Page:85)
P7701
IR
GND
CTL
N SW 4V
4
3
2
1
LB7701
VLP0196
D7701
MA4056
D7702
MA4056
C7701
0. 1
C7702
0. 1
PS7751
4 N. SW 4V
3 CTL
2 GND
1 IR
FRAME GND
FRONT LED C. B. A.
P7751
N. SW 4V 4
CTL 3
GND 2
IR 1
TO TIMER
P7504 (Page:87)
P7752
1 GND
2 IR
3 N. SW 4V
4 FRONT OPEN Ⓛ
5 REMO LED Ⓗ
6 TAPE IN
7 T REC
8 STAND BY
9 P ON
D7752
LN01801C-LF2
T REC
D7751
LN01301C-LF2
TAPE IN
D7754
LN01301C-LF2
P ON
D7753
LN01801C-LF2
P OFF

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IC7503 (M66010GP): SUB MICON

PIN. NO.	SIGNAL NAME	I/O	EXPLANATION	PIN. NO.	SIGNAL NAME	I/O	EXPLANATION
1	DO	O	Serial Data	17	EDIT	O	LED ON Edit
2	DI	I	Serial Data	18	V INS	O	LED ON Video Insert
3	CLK	I	Serial Clock	19	A DUB	O	LED ON Audio Dubbing
4	CS	I	I/O Chip Select	20	POWER	O	LED ON Power
5	VCC	I		21	A INS	O	LED ON Audio Insert
6	—	I		22	T REC	O	LED ON Timer Rec
7	GND	—		23	TAPE	O	LED ON Cassette In
8	ST2	O	LED ON Data Stereo 2	24	STAND BY	O	LED ON Stand By
9	ST1	O	LED ON Data Stereo 1	25	ST2 MONI	O	LED ON Monitor Stereo 2
10	12bit	O	LED ON 12 Bit	26	ST1 MONI	O	LED ON Monitor Stereo 1
11	16bit	O	LED ON 16 Bit	27	REM LED	O	LED ON
12	DIG OUT	O	LED ON DV Output	28	—	O	
13	DIG IN	O	LED ON DV Input	29	—	—	
14	CAS L	O	LED Normal Cassette	30	—	—	
15	CAS S	O	LED On Mini Cassette	31	—	—	
16	GND	—		32	—	—	

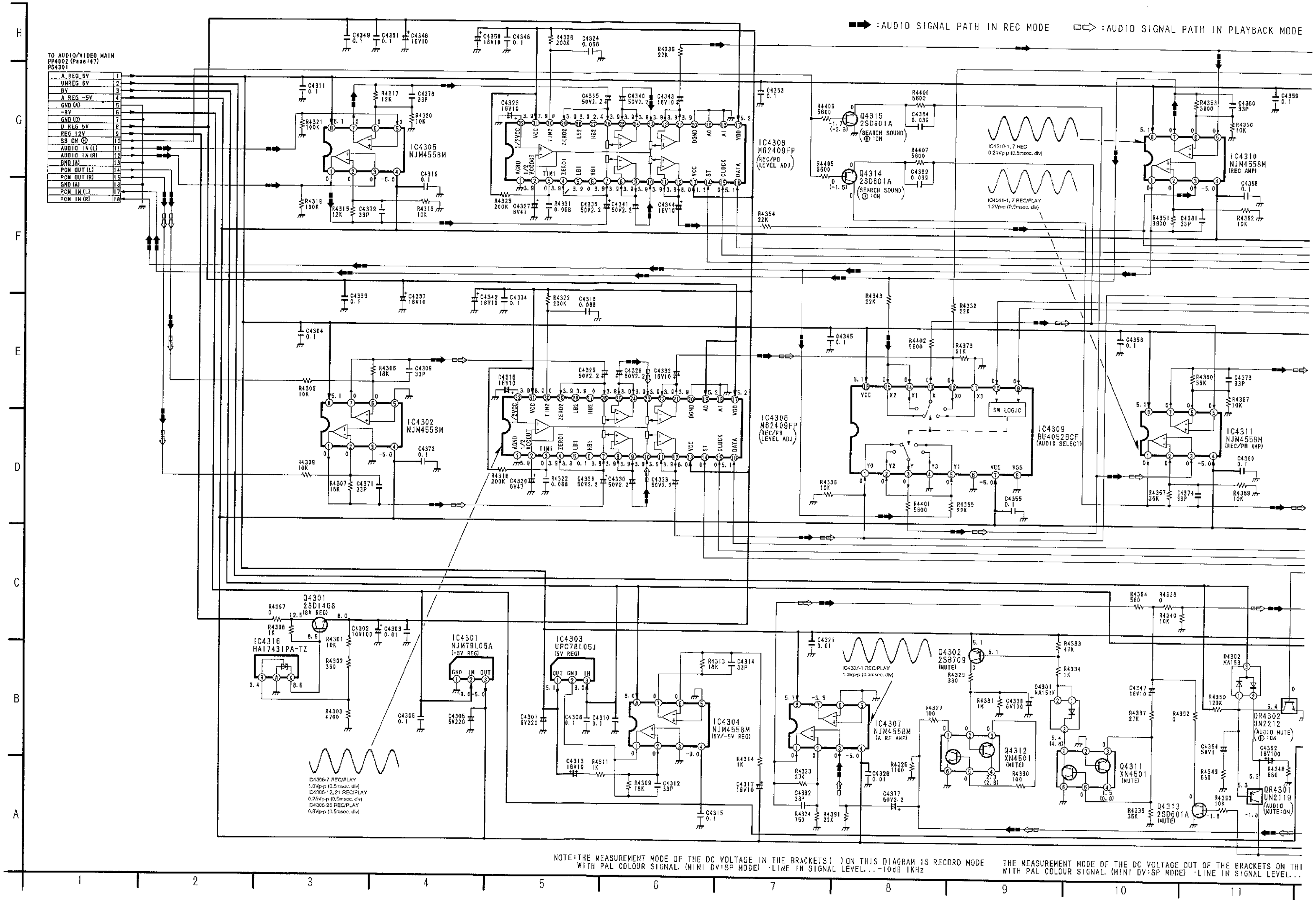
3-26. TIMER, MODOLAR SCHEMATIC DIAGRAMS


DP7501
VSL0512-8
REC
VCR DV TC REMAIN ON OFF ELP SP dB-∞ 40 20 7 2 0 4 7 10+
R
L
RX7501
EXBF6E104J
RX7502
EXBF6E104J
RX7503
EXBF6E104J
C7501 0.01
R7501 0
R7502 0
D7502 50V10
D7501 MA4220
R7503 1300
R7504 1300
R7505 100
C-LINE
D-LINE
B-LINE
9-LINE
A-LINE
TO EDIT/SYSTEM CONTROL & SERVO SECTION
P7902 (Page:37)
P7501
1 LEVEL METER 5V
2 N. SW 5V
3 TIMER BUS CLOCK
4 TIMER BUS LSN
5 TIMER BUS TLK
6 FIP/OSD CS
7 GND (DRIVE)
8 GND (DRIVE)
9 HEATER (-)
10 -29V
11 HEATER (+)
12 FRONT OPEN Ⓛ
13 GND (F)
14 SLPR DATA IN
15 SLPR DATA OUT
16 SLPR CLOCK
17 CS3
TO FRONT LED
P7752 (Page:86)
P7504
1 POWER ON Ⓗ
2 STANDBY
3 TIMER REC Ⓗ
4 CASSETTE IN Ⓗ
5 REM LED Ⓗ
6 FRONT OPEN Ⓛ
7 N. SW 4V
8 IR (VTR4)
9 GND
10 GND
MODULAR C. B. A.
MODULAR JACK
JK7601 (TO Page:85)
VJJ0587
P7601
4 N. SW 4V
3 REMO LED Ⓗ
2 GND
1 IR
TO MODULAR
P7601
P7503
1 IR (VTR4)
2 GND
3 REM LED Ⓗ
4 N. SW 4V
TO EDIT/SYSTEM CONTROL & SERVO SECTION
P7901 (Page:37)
P7502
1 IR (VTR4)
2 GND (RF)
3 GND (RF)
4 AD4
5 AD3
6 AD2
7 GND (DRIVE)
8 GND (DRIVE)
9 METER OFF Ⓗ
10 L CH Ⓛ
11 R CH Ⓛ
16 METER (L)
17 METER (R)
18 GND (A)
19 GND (A)
IC7501
M35500AFP
C7515 6V100
C7514 0.1
C7510 22P
R7506 0
IC7501-2 STOP
3.0Vp-p (0.2μsec. div)
R7511 30K
R7512 30K
R7513 30K
R7514 30K
R7515 30K
R7516 30K
LB7501 VLP0147
LB7502 VLP0147
LB7503 VLP0147
LB7504 VLP0147
R7520 220
R7521 220
R7522 220
R7523 220
IC7502
S80743AL
(RESET)
R7507 100K
D7502 MA165
C7512 50V2.2
C7513 0.1
L7501 22μ
IC7505
RN5RZ38B
3.8V REGULATOR
D7518 MA4056H
C7526 0.1
C7527 16V10
EJECT
S7501
VSP1053
R7510 4300
QR7520 UN211F (STANDBY) (Ⓛ:ON)
QR7521 UN211F (POWER) (Ⓛ:ON)
QR7522 UN211F (TIMER REC) (Ⓛ:ON)
QR7523 UN211F (CASSETTE IN) (Ⓛ:ON)
R7572 220
R7569 220
R7570 220
R7571 220
IC7503
M6810GP
(SUB MICON)
C7517 0.01
R7542 0
C7516 0.01
R7543 10K
R7544 10K
R7545 10K
R7546 10K
R7574 1K
C7508 100P
C7509 100P
QR7518 UN2111 (L CH Ⓛ:ON)
QR7519 UN2111 (R CH Ⓛ:ON)
QR7517 UN2111 (METER DRIVE)
QR7515 UN2112 (INV.)
QR7516 UN2112 (INV.)
C7518 0.1
C7519 0.1
IC7504
BA6810F
METER ADJ
VR4004 5KB
R7563 2700
C7521 0.047
C7520 0.047
C7525 25V4.7
R7564 47K
C7528 25V4.7
R7565 47K
C7523 6V22
C7522 0.1
D7517 MA165
R7567 22K
C7524 0.022
R7566 1K
IC7503-1 STOP
5.0Vp-p (5msec. div)
IC7503-2 STOP
5.0Vp-p (5msec. div)
IC7503-3 STOP
5.0Vp-p (5msec. div)
AUDIO MONITOR STEREO 1
D7503 LN28RCPPU
R7524 220
AUDIO MONITOR STEREO 2
D7504 LN28RCPPU
R7526 220
INSERT AUDIO
D7505 LN28RCPPU
R7528 220
AUDIO DUB
D7506 LN28RCPPU
R7539 220
INSERT VIDEO
D7507 LN28RCPPU
R7540 220
JOG/SHUTTLE
D7508 LN28RCPPU
R7541 220
QR7501 UN2112 (LED DRIVE)
QR7502 UN2112 (LED DRIVE)
QR7503 UN2112 (LED DRIVE)
QR7504 UN2112 (LED DRIVE)
QR7505 UN2112 (LED DRIVE)
QR7506 UN2112 (LED DRIVE)
R7573 10K
MINI DV CASSETTE
D7509 LN31 GCPHLMU
R7555 220
DV CASSETTE
D7510 LN31 GCPHLMU
R7556 220
DV IN
D7511 LN376 GCPXUY
R7557 220
DV OUT
D7512 LN376 GCPXUY
R7558 220
AUDIO DATA 16bit
D7513 LN48YCPL
R7559 220
AUDIO DATA 12bit
D7514 LN48YCPL
R7560 220
AUDIO DATA STEREO 1
D7515 LN28RCPPU
R7561 220
AUDIO DATA STEREO 2
D7516 LN28RCPPU
R7562 220
QR7507 UN2112 (LED DRIVE)
QR7508 UN2112 (LED DRIVE)
QR7509 UN2112 (LED DRIVE)
QR7510 UN2112 (LED DRIVE)
QR7511 UN2112 (LED DRIVE)
QR7512 UN2112 (LED DRIVE)
QR7513 UN2112 (LED DRIVE)
QR7514 UN2112 (LED DRIVE)
A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
10
11

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

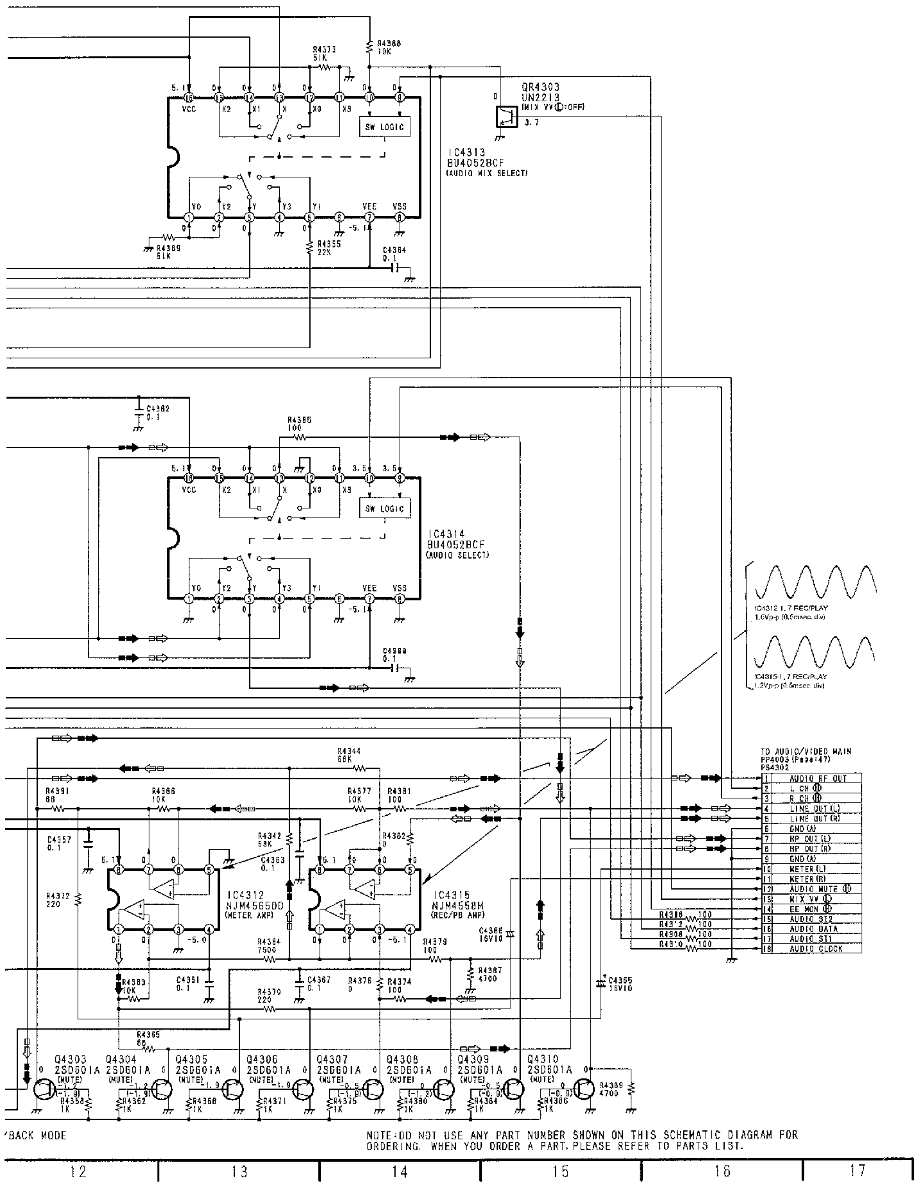
3-27. AUDIO SCHEMATIC DIAGRAM


■■➡ :AUDIO SIGNAL PATH IN REC MODE
▭⇨ :AUDIO SIGNAL PATH IN PLAYBACK MODE
TO AUDIO/VIDEO MAIN PP4002 (Page 47) PS4301
1 A REG 5V
2 UNREG 6V
3 8V
4 A REG -5V
5 GND(A)
6 -8V
7 GND(D)
8 D REG 5V
9 REG 12V
10 SS ON
11 AUDIO IN(L)
12 AUDIO IN(R)
13 GND(A)
14 PCM OUT(L)
15 PCM OUT(R)
16 GND(A)
17 PCM IN(L)
18 PCM IN(R)
IC4305 NJM4558M
IC4308 M62409FP (REC/PB LEVEL ADJ)
Q4315 2SD601A (SEARCH SOUND) (H):ON
Q4314 2SD601A (SEARCH SOUND) (H):ON
IC4310 NJM4558M (REC AMP)
IC4302 NJM4558M
IC4306 M62409FP (REC/PB LEVEL ADJ)
IC4309 BU4052BCF (AUDIO SELECT)
IC4311 NJM4558M (REC/PB AMP)
Q4301 2SD1468 (8V REG)
IC4316 HA17431PA-TZ
IC4301 NJM79L05A (-5V REG)
IC4303 UPC78L05J (5V REG)
IC4304 NJM4558M (5V/-5V REG)
IC4307 NJM4558M (A RF AMP)
Q4302 2SB709 (MUTE)
Q4312 XN4501 (MUTE)
Q4311 XN4501 (MUTE)
D4301 MA151K
D4302 MA153
Q4313 2SD601A (MUTE)
QR4302 UN2212 (AUDIO MUTE) (H):ON
QR4301 UN2119 (AUDIO MUTE:ON)
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE) ·LINE IN SIGNAL LEVEL...-10dB 1KHz

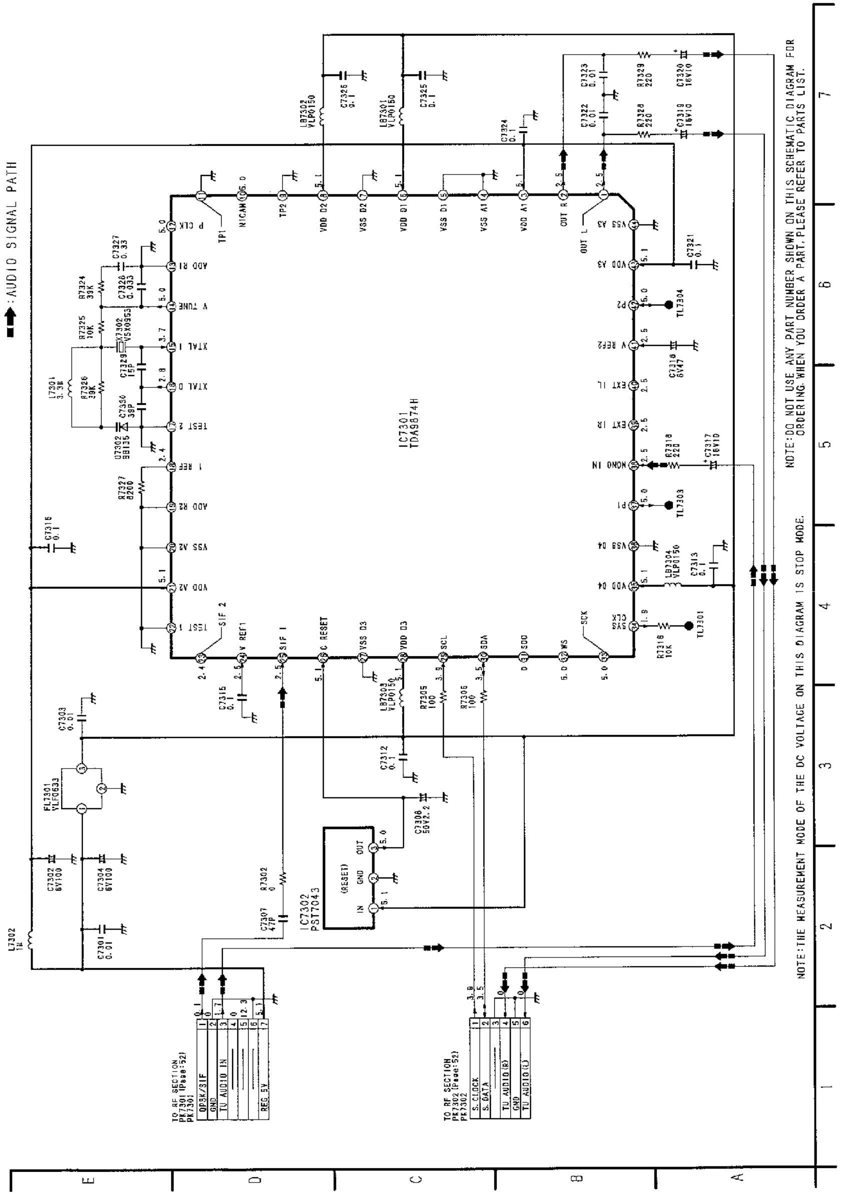
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THI WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE) ·LINE IN SIGNAL LEVEL...

■■➡ :AUDIO SIGNAL PATH IN REC MODE　　□⇨ :AUDIO SIGNAL PATH IN PLAYBACK MODE


IC4313
BU4052BCF
(AUDIO MIX SELECT)
QR4303
UN2213
(MIX VV (L):OFF)
IC4314
BU4052BCF
(AUDIO SELECT)
SW LOGIC
VCC
VEE
VSS
IC4312 NJM4565DD (METER AMP)
IC4315 NJM4558H (REC/PB AMP)
IC4312-1,7 REC/PLAY 1.0Vp-p (0.5msec.div)
IC4315-1,7 REC/PLAY 1.2Vp-p (0.5msec.div)
TO AUDIO/VIDEO MAIN
PP4003 (Page:47)
PS4302
1 AUDIO RF OUT
2 L CH (H)
3 R CH (H)
4 LINE OUT (L)
5 LINE OUT (R)
6 GND (A)
7 HP OUT (L)
8 HP OUT (R)
9 GND (A)
10 METER (L)
11 METER (R)
12 AUDIO MUTE (H)
13 MIX VV (L)
14 EE MON (H)
15 AUDIO ST2
16 AUDIO DATA
17 AUDIO ST1
18 AUDIO CLOCK
Q4303 2SD601A (MUTE)
Q4304 2SD601A (MUTE)
Q4305 2SD601A (MUTE)
Q4306 2SD601A (MUTE)
Q4307 2SD601A (MUTE)
Q4308 2SD601A (MUTE)
Q4309 2SD601A (MUTE)
Q4310 2SD601A (MUTE)
'BACK MODE
12
13
14
15
16
17

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

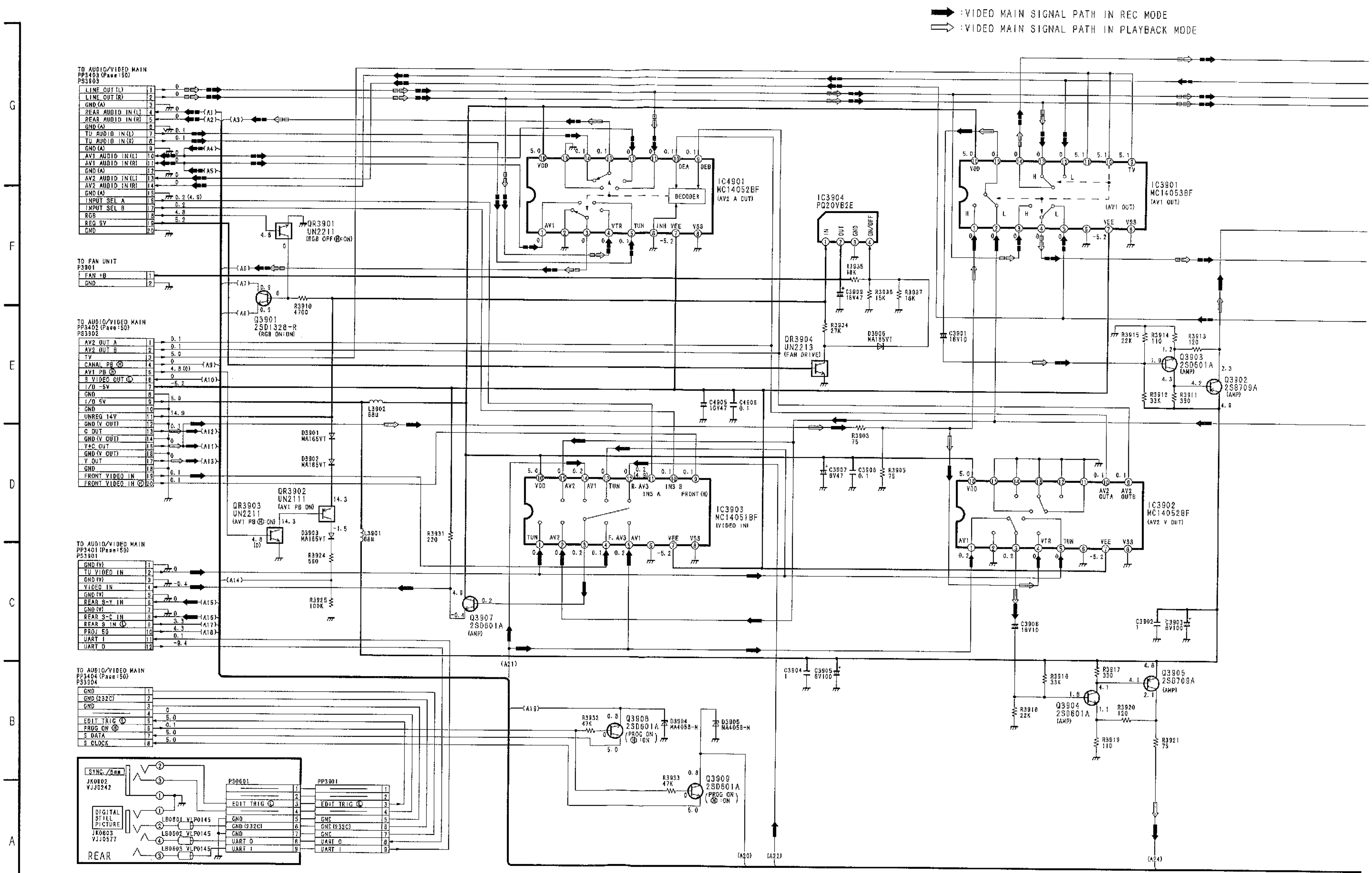
3-28. NICAM DECODER SCHEMATIC DIAGRAM


■■➡ :AUDIO SIGNAL PATH
IC7301
TDA9874H
IC7302
PST7043
(RESET)
IN
GND
OUT
FL7301
VLF0633
L7302
TU AUDIO (L)
TO RF SECTION
PK7301 (Page:52)
PK7301
1 QPSK/SIF
2 GND
3 TU AUDIO IN
7 REG 5V
TO RF SECTION
PK7302 (Page:52)
PK7302
1 S. CLOCK
2 S. DATA
4 TU AUDIO (R)
5 GND
6 TU AUDIO (L)
A
B
C
D
E
1
2
3
4
5
6
7

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-29. INPUT/OUTPUT, PEAR JACK SCHEMATIC DIAGRAMS

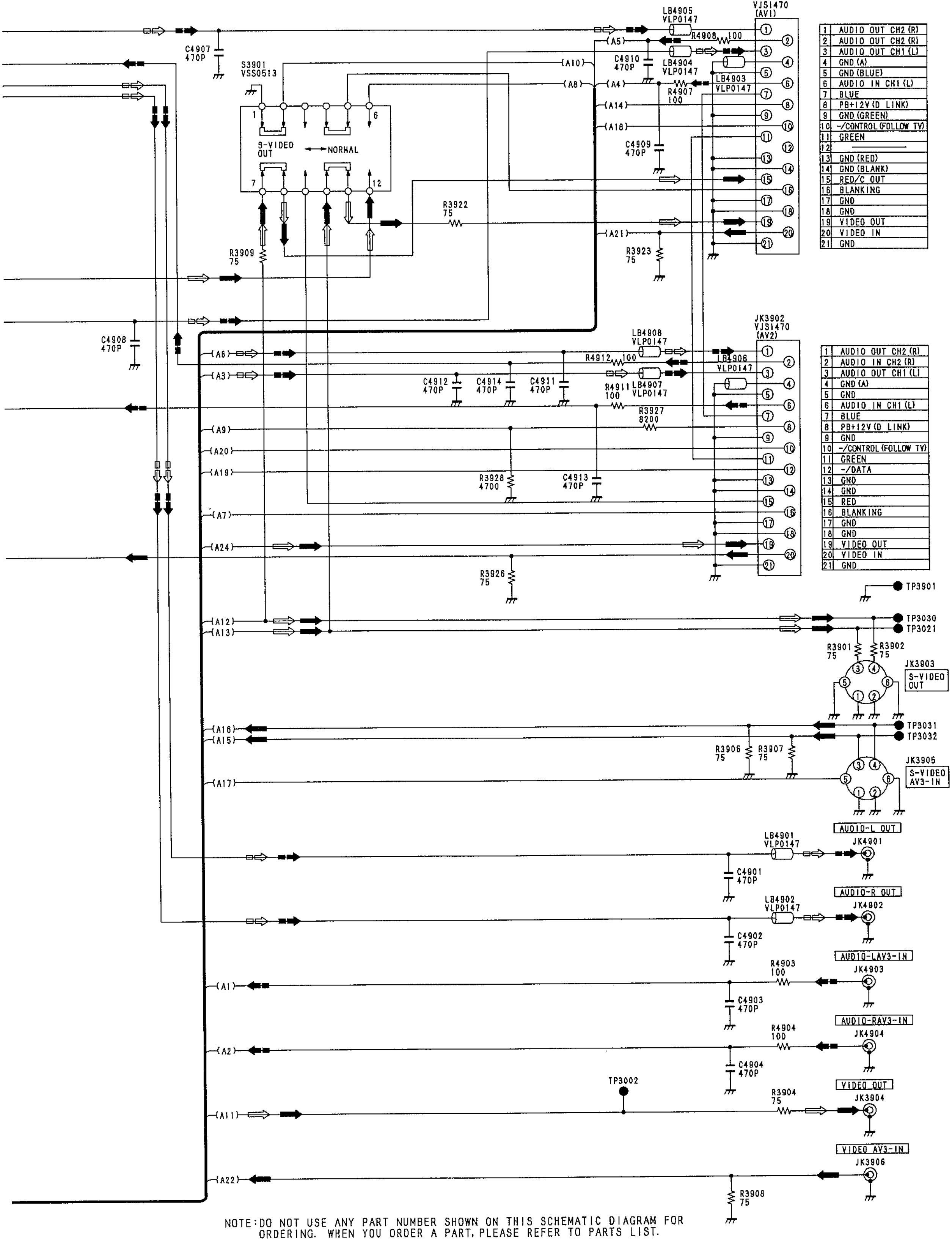

:VIDEO MAIN SIGNAL PATH IN REC MODE
:VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
TO AUDIO/VIDEO MAIN PP3403 (Page:50) PS3903
1 LINE OUT (L)
2 LINE OUT (R)
3 GND (A)
4 REAR AUDIO IN (L)
5 REAR AUDIO IN (R)
6 GND (A)
7 TU AUDIO IN (L)
8 TU AUDIO IN (R)
9 GND (A)
10 AV1 AUDIO IN (L)
11 AV1 AUDIO IN (R)
12 GND (A)
13 AV2 AUDIO IN (L)
14 AV2 AUDIO IN (R)
15 GND (A)
16 INPUT SEL A
17 INPUT SEL B
18 RGB
19 REG 5V
20 GND
TO FAN UNIT P3901
1 FAN +B
2 GND
TO AUDIO/VIDEO MAIN PP3402 (Page:50) PS3902
1 AV2 OUT A
2 AV2 OUT B
3 TV
4 CANAL PB Ⓗ
5 AV1 PB Ⓗ
6 S VIDEO OUT Ⓛ
7 I/O -5V
8 GND
9 I/O 5V
10 GND
11 UNREG 14V
12 GND (V OUT)
13 C OUT
14 GND (V OUT)
15 Y+C OUT
16 GND (V OUT)
17 Y OUT
18 GND
19 FRONT VIDEO IN
20 FRONT VIDEO IN Ⓗ
TO AUDIO/VIDEO MAIN PP3401 (Page:50) PS3901
1 GND (V)
2 TU VIDEO IN
3 GND (V)
4 VIDEO IN
5 GND (V)
6 REAR S-Y IN
7 GND (V)
8 REAR S-C IN
9 REAR S IN Ⓛ
10 PROJ 50
11 UART I
12 UART O
TO AUDIO/VIDEO MAIN PP3404 (Page:50) PS3904
1 GND
2 GND (232C)
3 GND
4
5 EDIT TRIG Ⓛ
6 PROG ON Ⓗ
7 S DATA
8 S CLOCK
SYNC./8mm
JK0802 VJJ0242
DIGITAL STILL PICTURE
JK0803 VJJ0577
REAR
LB0801 VLP0145
LB0802 VLP0145
LB0803 VLP0145
PS0601
EDIT TRIG Ⓛ
GND
GND (232C)
GND
UART O
UART I
PP3901
EDIT TRIG Ⓛ
GNC
GNC (232C)
GNC
UART O
UART I
QR3901 UN2211 (RGB OFF Ⓗ:ON)
Q3901 2SD1328-R (RGB ON:ON)
R3910 4700
QR3902 UN2111 (AV1 PB ON)
QR3903 UN2211 (AV1 PB Ⓗ:ON)
D3901 MA165VT
D3902 MA165VT
D3903 MA165VT
R3924 560
R3925 100K
L3901 68μ
L3902 68μ
R3931 220
Q3907 2SD601A (AMP)
IC4901 MC14052BF (AV2 A OUT)
DECODER
C4905 16V47
C4906 0.1
IC3904 PQ20VB2E
IN OUT GND ON/OFF
L3935 18K
C3909 16V47
R3936 15K
R3937 18K
R3934 27K
D3906 MA165VT
QR3904 UN2213 (FAN DRIVE)
R3903 75
C3907 6V47
C3908 0.1
R3905 75
IC3903 MC14051BF (VIDEO IN)
C3904 1
C3905 6V100
R3932 47K
Q3908 2SD601A (PROG ON) (Ⓗ:ON)
D3904 MA4056-H
D3905 MA4056-H
R3933 47K
Q3909 2SD601A (PROG ON) (Ⓗ:ON)
IC3901 MC14053BF (AV1 OUT)
C3901 16V10
R3915 22K
R3914 110
R3913 120
R3912 33K
R3911 330
Q3903 2SD601A (AMP)
Q3902 2SB709A (AMP)
IC3902 MC14052BF (AV2 V OUT)
C3906 16V10
C3902 1
C3903 6V100
R3916 33K
R3917 330
R3918 22K
Q3904 2SD601A (AMP)
R3920 120
R3919 110
Q3905 2SB709A (AMP)
R3921 75
(A1) (A2) (A3) (A4) (A5) (A6) (A7) (A8) (A9) (A10) (A11) (A12) (A13) (A14) (A15) (A16) (A17) (A18) (A19) (A20) (A21) (A22) (A24)
G F E D C B A
1 2 3 4 5 6 7 8 9 10

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE) ·LINE IN SIGNAL LEVEL...-10dB 1kHz

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (MINI DV:SP MODE) ·LINE IN SIGNAL LEVEL...-10dB 1kHz

■➡ :AUDIO MAIN SIGNAL PATH IN REC MODE

□⇨ :AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE


JK3901
VJS1470
(AV1)
LB4905
VLP0147
R4908 100
C4907 470P
S3901
VSS0513
S-VIDEO OUT
NORMAL
C4910 470P
LB4904 VLP0147
LB4903 VLP0147
R4907 100
C4909 470P
R3922 75
R3909 75
R3923 75
(A5)
(A10)
(A8)
(A4)
(A14)
(A18)
(A21)
C4908 470P
JK3902
VJS1470
(AV2)
LB4908 VLP0147
R4912 100
LB4906 VLP0147
LB4907 VLP0147
R4911 100
C4912 470P
C4914 470P
C4911 470P
R3927 8200
R3928 4700
C4913 470P
R3926 75
(A6)
(A3)
(A9)
(A20)
(A19)
(A7)
(A24)
(A12)
(A13)
(A16)
(A15)
(A17)
TP3901
TP3030
TP3021
R3901 75
R3902 75
JK3903
S-VIDEO OUT
TP3031
TP3032
R3906 75
R3907 75
JK3905
S-VIDEO AV3-IN
AUDIO-L OUT
LB4901 VLP0147
JK4901
C4901 470P
AUDIO-R OUT
LB4902 VLP0147
JK4902
C4902 470P
AUDIO-LAV3-IN
R4903 100
JK4903
C4903 470P
(A1)
AUDIO-RAV3-IN
R4904 100
JK4904
C4904 470P
(A2)
VIDEO OUT
TP3002
R3904 75
JK3904
(A11)
VIDEO AV3-IN
JK3906
R3908 75
(A22)

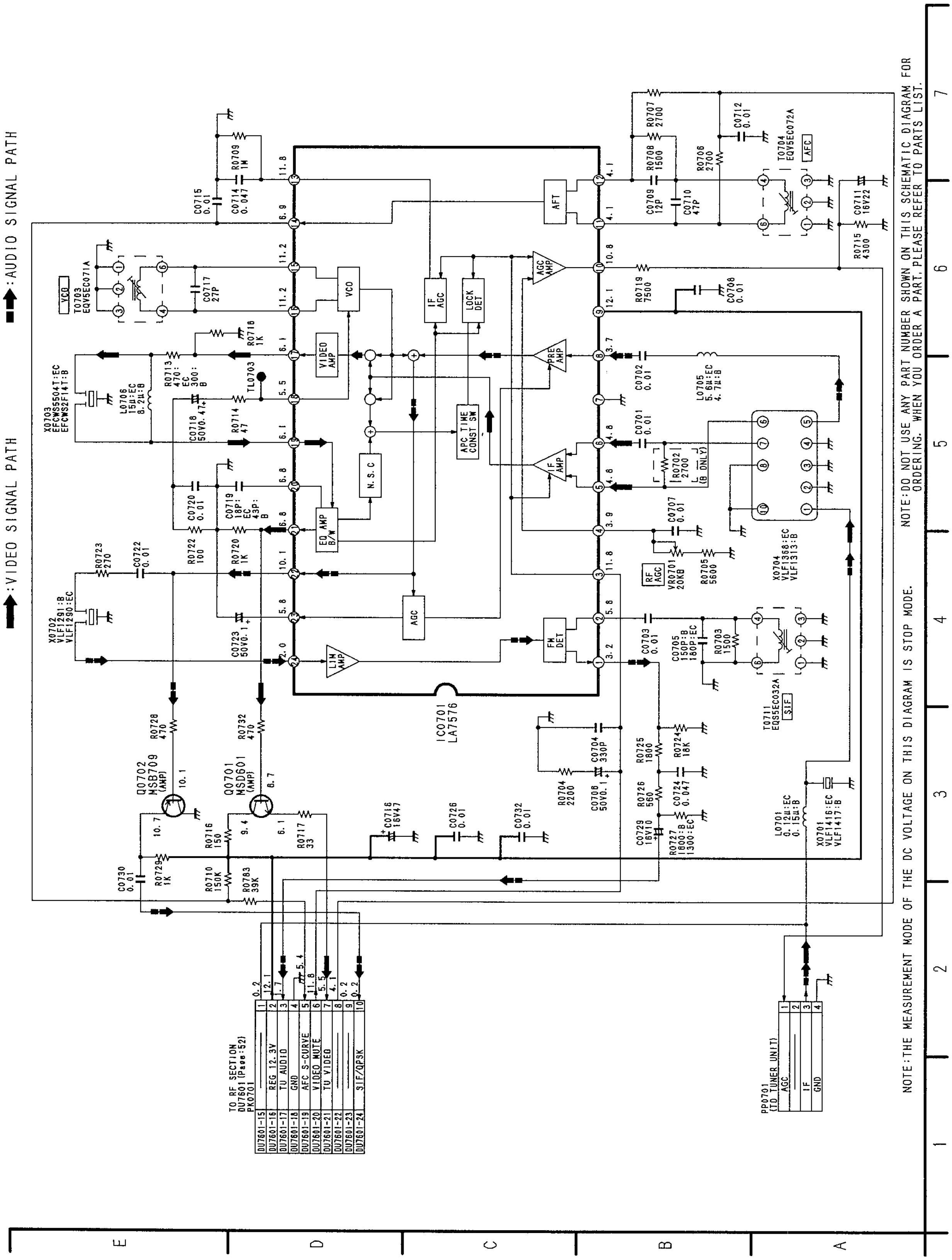
1	AUDIO OUT CH2 (R)
2	AUDIO OUT CH2 (R)
3	AUDIO OUT CH1 (L)
4	GND (A)
5	GND (BLUE)
6	AUDIO IN CH1 (L)
7	BLUE
8	PB+12V (D LINK)
9	GND (GREEN)
10	-/CONTROL (FOLLOW TV)
11	GREEN
12	———
13	GND (RED)
14	GND (BLANK)
15	RED/C OUT
16	BLANKING
17	GND
18	GND
19	VIDEO OUT
20	VIDEO IN
21	GND

1	AUDIO OUT CH2 (R)
2	AUDIO IN CH2 (R)
3	AUDIO OUT CH1 (L)
4	GND (A)
5	GND
6	AUDIO IN CH1 (L)
7	BLUE
8	PB+12V (D LINK)
9	GND
10	-/CONTROL (FOLLOW TV)
11	GREEN
12	-/DATA
13	GND
14	GND
15	RED
16	BLANKING
17	GND
18	GND
19	VIDEO OUT
20	VIDEO IN
21	GND

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

11 12 13 14 15

3-30. TV DEMODULATOR SCHEMATIC DIAGRAM

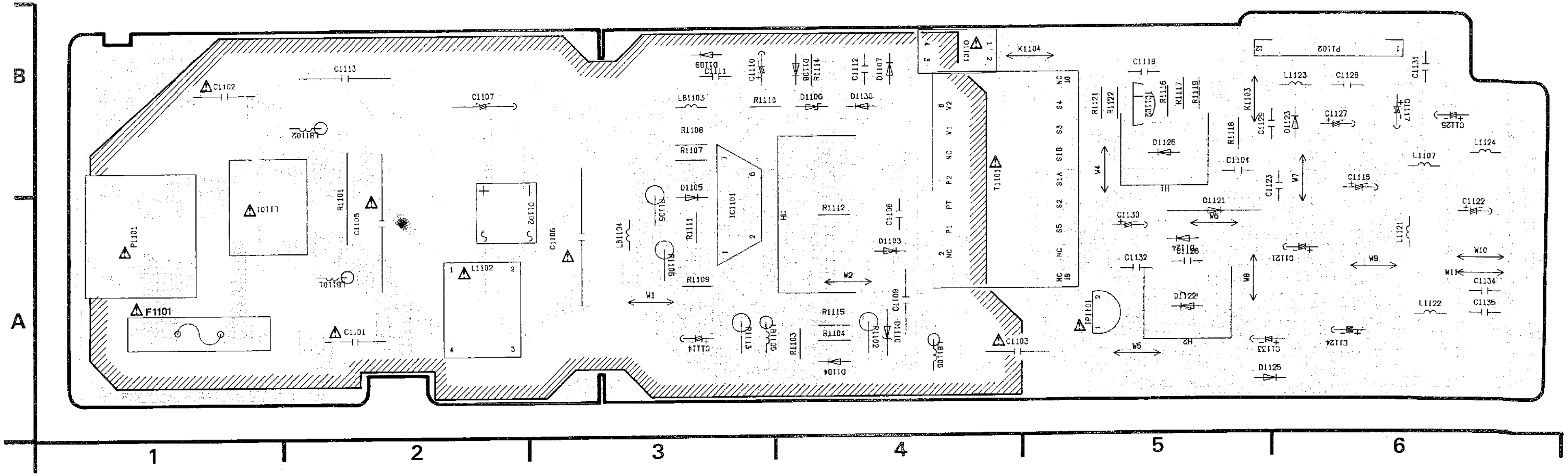

:VIDEO SIGNAL PATH
:AUDIO SIGNAL PATH
IC0701 LA7576
VCO
VIDEO AMP
IF AGC
LOCK DET
APC TIME CONST SW
N.S.C
EQ AMP B/W
AGC
LIM AMP
FM DET
AFT
AGC AMP
PRE AMP
IF AMP
RF AGC
VR0701 20KB
T0703 EQV5EC071A
T0704 EQV5EC072A
AFC
T0711 EQ55EC032A
SIF
X0701 VLF1416:EC VLF1417:B
X0702 VLF1291:B VLF1290:EC
X0703 EFCWS5504T:EC EFCWS2F14T:B
X0704 VLF1368:EC VLF1313:B
L0701 0.12μ:EC 0.15μ:B
L0705 5.6μ:EC 4.7μ:B
L0706 15μ:EC 8.2μ:B
TL0703
Q0701 MSD601 (AMP)
Q0702 MSB709 (AMP)
R0702 2700 (B ONLY)
TO RF SECTION DU7601 (Page:52) PK0701
DU7601-15 1
DU7601-16 REG 12.3V 2
DU7601-17 TU AUDIO 3
DU7601-18 GND 4
DU7601-19 AFC S-CURVE 5
DU7601-20 VIDEO MUTE 6
DU7601-21 TU VIDEO 7
DU7601-22 8
DU7601-23 9
DU7601-24 SIF/QP3K 10
PP0701 (TO TUNER UNIT)
AGC 1
2
IF 3
GND 4
A
B
C
D
E
1
2
3
4
5
6
7

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

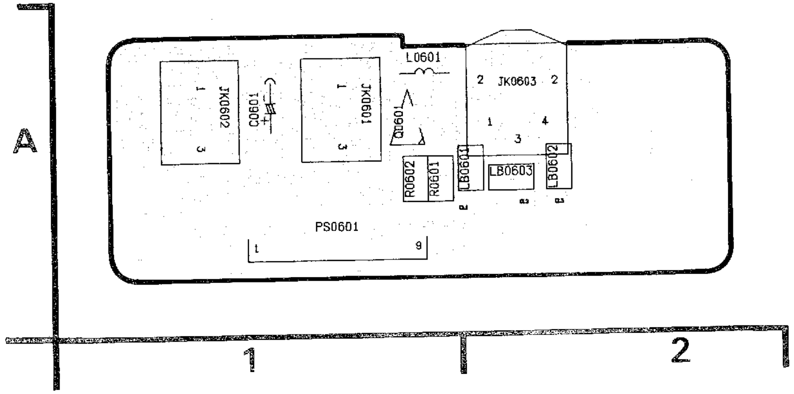
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-31. POWER SUPPLY C B.A (VEP01814A)

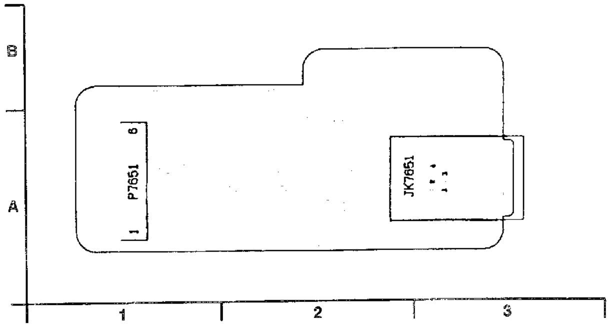
CAUTION THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.


A
B
1
2
3
4
5
6
P1101
F1101
C1102
C1113
LB1102
T1101
C1101
R1101
C1105
LB1101
C1107
D1102
L1102
C1106
LB1104
R1105
R1106
W1
LB1103
R1108
R1107
D1105
R1111
R1109
D1109
C1111
C1110
R1110
D1108
R1114
D1106
C1112
D1107
D1130
IC1101
HC
R1112
C1108
D1103
W2
R1115
R1104
R1113
LB1105
R1103
D1104
C1114
C1109
D1110
R1102
LB1105
C1103
Q1101
K1104
T1101
NC
V2
V1
P2
FT
P1
S4
S3
S1B
S1A
S2
S5
P1101
R1121
R1122
C1118
IC1102
R1116
R1117
R1119
H1
D1126
W4
C1130
C1132
D1121
W6
R1118
C1104
K1103
D1122
H2
W5
C1129
D1123
C1123
W7
W8
C1133
D1125
P1102
L1123
C1128
C1127
C1116
C1121
C1124
W9
C1131
C1117
L1107
L1121
C1125
L1124
C1122
W10
W11
C1134
C1135
L1122

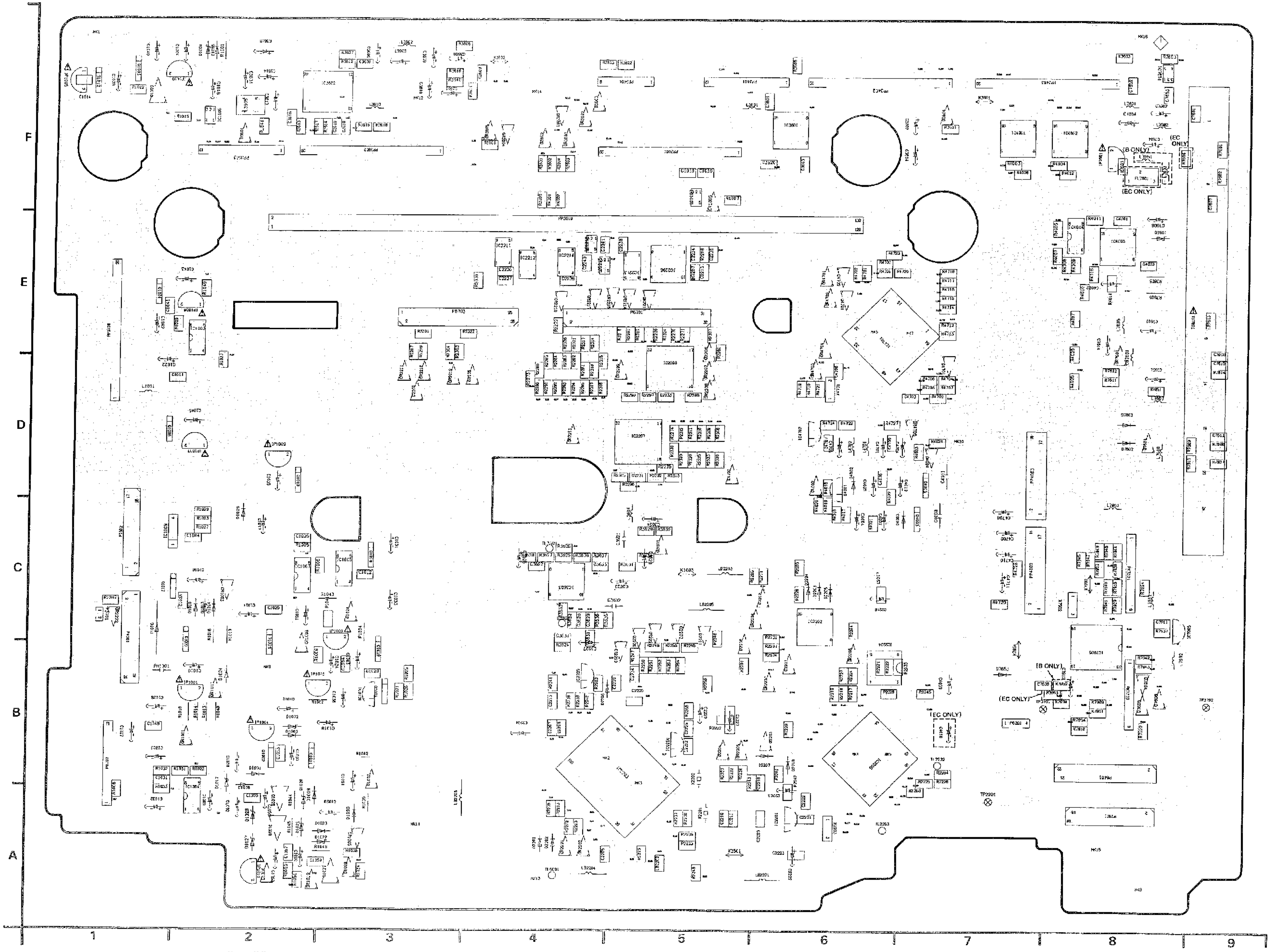
3-32. REAR JACK C.B.A. (VEP03E29A)


A
1
2
JK0602
C0601
JK0601
Q0601
L0601
JK0603
R0602
R0601
LB0601
LB0603
LB0602
PS0601

3-33. DV JACK C.B.A. (VEP07967A)


A
B
1
2
3
P7651
JK7651

3-34 MAIN C.B.A. (VEP06C40B: NV-DV10000B) (VEP06C40A: NV-DV10000EC)


F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
(B ONLY)
(EC ONLY)
(B ONLY)
(EC ONLY)
(EC ONLY)

3-35 FRONT (L) C B A (VEP04695B)

MAIN C.B.A.

Transistor	
Q1001	B-3
Q1002	B-2
Q1003	F-1
Q1004	E-1
Q1005	D-1
Q1008	F-1
Q1009	C-2
Q1010	D-2
Q1011	B-2
Q1012	F-1
Q1017	C-1
Q1018	C-2
Q1020	A-3
Q1023	B-3
Q1024	C-3
Q1025	A-2
Q1026	A-2
Q1027	A-3
Q1028	C-3
Q1029	B-3
Q1030	A-2
Q2201	B-6
Q2202	C-6
Q2203	B-6
Q2204	B-5
Q2205	D-3
Q2206	C-5
Q2207	C-5
Q2208	E-5
Q3601	C-5
Q4001	D-6
Q4002	D-6
Q4003	C-7
Q4004	D-7
Q4005	D-7
Q4701	E-6
Q4702	E-6
Q7601	D-8
Q7604	B-8
Q7605	B-8
Q7606	B-8

Transistor & Resistor	
QR1001	B-2
QR1003	C-2
QR1005	A-3
QR1008	C-2
QR1009	F-5
QR1011	B-2
QR1012	A-2
QR2201	A-4
QR2202	A-4
QR2203	B-6
QR2204	C-5
QR2205	B-5
QR2206	B-6
QR2207	D-5
QR2208	D-5
QR2209	D-5
QR2210	D-3
QR2211	D-3
QR2212	D-3
QR2213	D-4
QR2214	E-5
QR2215	E-5
QR2216	E-4
QR2217	E-4
QR2218	E-4
QR2220	B-5
QR2221	C-5
QR2222	C-1
QR3601	F-4
QR3602	F-4
QR3603	F-4
QR3604	F-4
QR3605	F-4
QR4701	E-6
QR4702	E-6
QR4703	D-6
QR4704	E-6
QR4706	D-7
QR7601	D-8

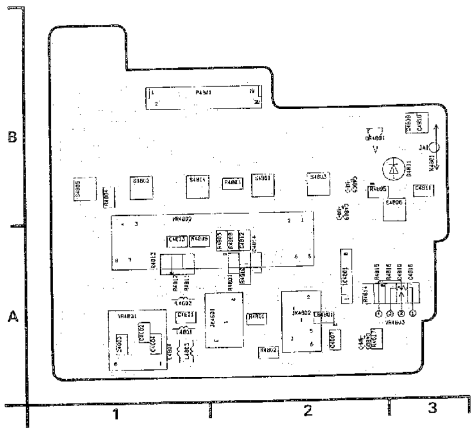
Integrated Circuit	
IC1001	B-3
IC1003	E-2
IC1004	A-2
IC1005	F-2
IC1006	C-3
IC1007	C-2
IC1008	F-5
IC1009	C-1
IC2201	A-6
IC2202	C-6
IC2203	B-5
IC2204	B-6
IC2205	B-6
IC2206	E-5
IC2207	D-5
IC2208	D-5
IC2209	B-4
IC2210	B-5
IC2211	E-4
IC2212	E-4
IC2213	E-5
IC2214	E-4
IC2215	E-4
IC2216	E-4
IC3601	F-6
IC3602	F-2
IC3603	C-4
IC4001	F-7
IC4002	F-7
IC4003	F-7
IC4004	E-8
IC4701	E-6
IC4702	D-6
IC7651	F-8
IC7905	C-8
IC7906	B-8

IP	
IP1001	B-2
IP1002	D-2
IP1003	B-2
IP1004	B-2
IP1005	F-1
IP1006	E-2
IP1007	D-2
IP1008	C-3
IP1009	F-1
IP1011	A-2
IP7601	F-8

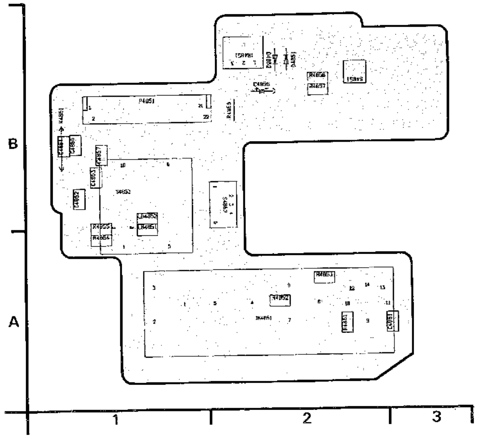
Test Point	
TL2202	B-7
TL2203	A-6
TL3601	C-4
TL3602	C-4
TL6001	A-4
TP2201	A-7
TP3701	B-7
TP3702	B-9

Connector	
P3701	C-1
P4001	C-1
P6201	B-7
P6401	B-8
P6701	E-5
P6703	E-3
P6707	B-1
P7901	A-8
P7902	C-1
PK7301	C-8
PK7302	B-8
PP3401	F-5
PP3402	F-6
PP3403	F-7
PP3404	F-5
PP3501	F-5
PP3502	F-3
PP3503	F-2
PP3610	E-4
PP4002	C-7
PP4003	D-7
PP6706	E-1
TU7601	E-8

ADDRESS INFORMATION

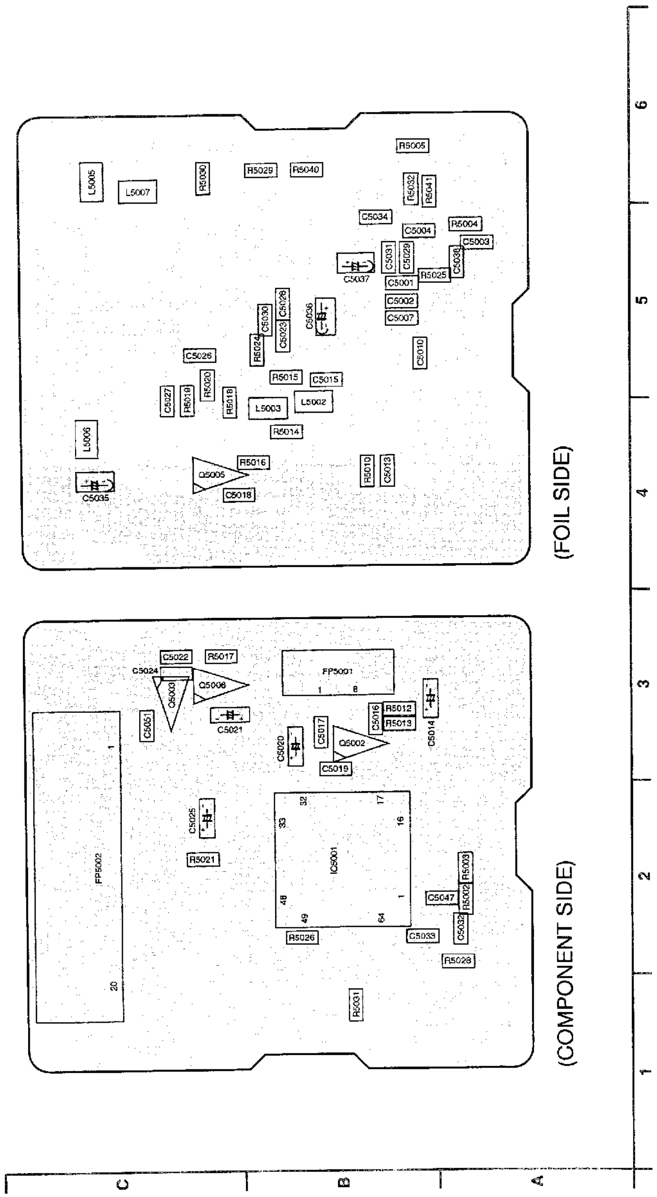


3-36 FRONT (R) C B A (VEP04696B)

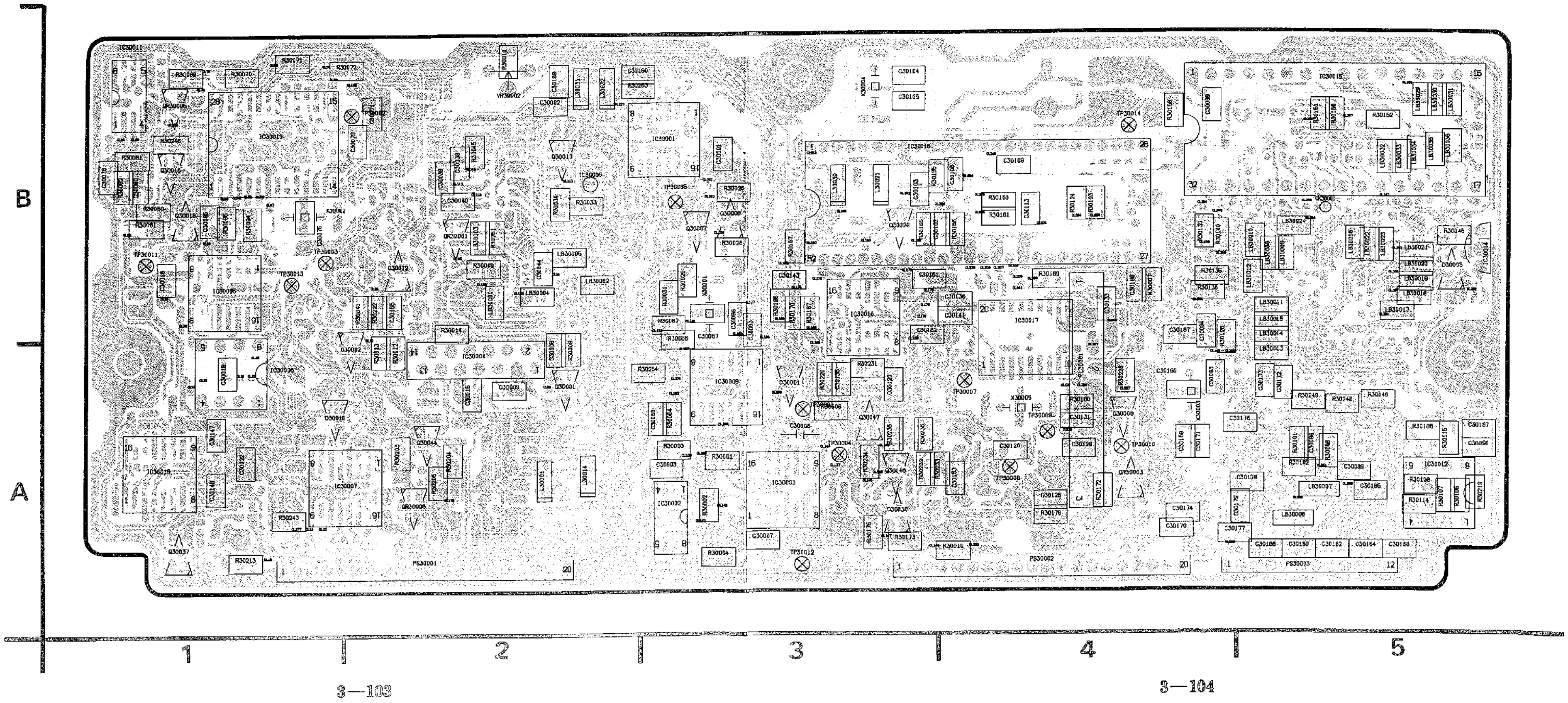


3-37 HEAD AMP C.B.A. (VEP05351A)

NOTE: MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.


(FOIL SIDE)
(COMPONENT SIDE)
L5005
L5007
L5006
R5030
R5029
R5040
R5005
R5032
R5041
C5034
C5004
R5004
C5003
C5037
C5031
C5029
R5025
C5036
C5001
C5002
C5007
C5010
C5026
R5015
C5015
L5003
L5002
R5014
Q5005
R5016
C5018
C5035
C5022
R5017
C5024
Q5003
Q5006
C5021
FP5001
R5012
R5013
C5014
C5051
C5020
C5017
Q5002
C5019
FP5002
C5025
R5021
IC5001
C5047
R5002
R5003
C5033
C5032
R5026
R5028
R5031
1
2
3
4
5
6
A
B
C

3-38 ANALOG Y/C C.B.A (VEP03E27A)


B
A
1
2
3
4
5
3—103
3—104

ANALOG Y/C C.B.A.

Transistor	
Q30001	A-2
Q30002	A-2
Q30003	B-9
Q30004	B-9
Q30005	B-8
Q30006	B-8
Q30007	B-3
Q30008	B-3
Q30009	B-8
Q30010	B-2
Q30011	B-10
Q30012	B-2
Q30013	B-9
Q30014	B-9
Q30015	A-9
Q30016	B-1
Q30017	A-9
Q30018	B-1
Q30019	A-10
Q30020	B-10
Q30021	B-10
Q30022	B-10
Q30023	B-10
Q30024	B-10
Q30025	A-6
Q30026	A-6
Q30027	A-7
Q30028	B-3
Q30030	A-3
Q30031	A-8
Q30032	A-8
Q30033	A-7
Q30034	A-7
Q30035	A-7
Q30036	A-9
Q30037	A-1
Q30038	A-10
Q30039	A-10
Q30040	A-10
Q30042	A-9
Q30043	A-10
Q30044	A-2
Q30045	A-8
Q30046	A-3
Q30047	A-3
Q30048	A-8
Q30049	A-9

Transistor & Resistor	
QR30001	B-2
QR30003	A-4
QR30004	A-7
QR30005	B-1
QR30006	A-2

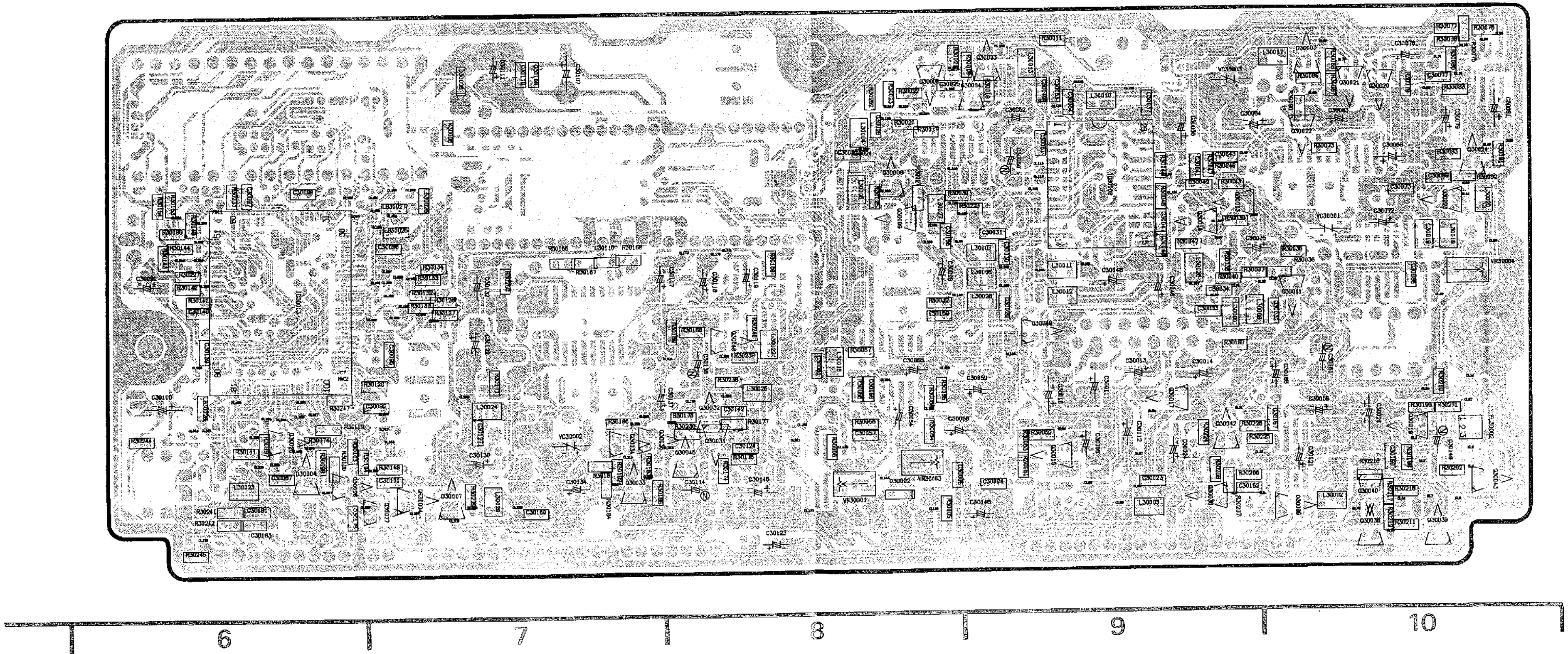
Integrated Circuit	
IC30001	B-3
IC30002	A-3
IC30003	A-3
IC30004	A-2
IC30005	B-1
IC30006	A-1
IC30007	A-1
IC30008	B-9
IC30009	A-3
IC30010	B-1
IC30011	B-1
IC30012	A-5
IC30013	B-6
IC30014	B-5
IC30015	B-5
IC30016	B-3
IC30017	B-4
IC30018	B-3
IC30019	A-1

Test Point	
TL30006	B-2
TP30001	A-3
TP30002	B-2
TP30003	B-1
TP30004	A-3
TP30005	B-3
TP30007	A-4
TP30008	A-4
TP30009	A-4
TP30010	A-4
TP30011	B-1
TP30012	A-3
TP30013	B-1
TP30014	B-4

Adjustment	
VC30001	B-10
VC30002	A-7
VC30003	B-9
VR30001	A-8
VR30002	B-2
VR30003	A-8
VR30004	B-10

Connector	
PS30001	A-2
PS30002	A-4
PS30003	A-5

ADDRESS INFORMATION



3-39. DIGITAL C.B.A. (VEP03E55A)

AV DIGITAL C.B.A. (1)

Transistor	
Q3001	A-4
Q3002	A-4
Q3003	A-7
Q3004	A-5
Q3005	A-5
Q3006	A-5
Q3007	A-7
Q3008	A-7
Q3201	B-2
Q6001	B-1

Transistor & Resistor	
QR2001	A-10
QR2002	A-9
QR2003	A-9
QR6001	B-1

Integrated Circuit	
IC2001	A-2
IC2002	A-2
IC2004	A-10
IC2005	A-8
IC2006	A-3
IC3001	B-4
IC3002	B-7
IC3003	B-4
IC3004	B-4
IC3005	B-6
IC3006	A-7
IC3007	A-4
IC3008	B-7
IC3009	A-4
IC3010	A-7
IC3201	A-3
IC3202	A-8
IC3203	B-9
IC3204	B-8
IC3205	B-3
IC3207	B-2
IC3701	B-5
IC4201	B-7
IC4210	B-3
IC4501	B-4
IC6001	B-10
IC6002	B-1
IC6003	B-1
IC6004	B-1
IC6005	B-1
IC6006	A-1

Diode	
D2001	A-9
D2003	B-9
D2004	B-9
D2005	B-9
D2006	A-3
D2007	B-9
D2008	A-2
D2009	A-10
D2010	A-10
D2011	B-10
D2012	B-10
D2013	A-10
D2014	B-2
D3002	A-5
D3003	B-7
D3201	B-3
D4501	B-7
D6002	B-10
D6003	B-10
D6004	B-10
D6005	B-10
D6007	B-1
D6008	B-1

Test Point	
TL1	A-1
TL4	A-9
TL5	A-9
TL9	B-9
TL10	A-1
TL11	A-1
TL12	A-1
TL13	A-2
TL14	A-2
TL15	B-2
TL16	B-2
TL17	B-2
TL18	A-2
TL19	A-2
TL20	B-9
TL21	B-2
TL22	B-2
TL23	B-2
TL26	B-9
TL27	A-2
TL28	A-2
TL29	B-1
TL30	A-2
TL31	B-1
TL32	A-2
TL33	A-1
TL34	A-1
TL35	A-1
TL36	A-1
TL37	B-1
TL47	B-1
TL59	B-8
TL60	B-8
TL3002	B-6
TL3004	A-5
TL3006	A-6
TL3014	A-5
TL3020	B-5
TL3024	B-5
TL3026	B-4
TL3027	B-4
TL3028	A-7
TL3201	B-9
TL3202	B-8
TL3203	B-9
TL3204	B-9
TL3205	B-9
TL3206	B-2
TL3207	B-3
TL3208	B-3
TL3209	B-2
TL3210	B-2
TL3211	B-2
TL3212	B-2
TL3214	B-2
TL3216	B-2
TL3217	B-2
TL3218	B-2
TL3219	B-2
TL3220	B-2
TL3221	B-2
TL3222	B-2
TL3223	B-2
TL3224	B-2
TL6001	B-10
TL6002	B-10
TL6005	B-9
TL6006	B-9
TL6007	B-9
TL6008	B-9
TL6009	B-1
TL6010	B-1
TL6012	B-10
TL6013	B-10
TL6014	B-10
TL6015	B-10
TL6016	B-10
TL6017	B-10
TL6018	B-10
TL6020	B-10
TL6021	B-10
TL6024	B-10
TL6025	B-10
TL6026	B-1
TL6029	B-10
TL6030	B-10
TL6031	B-10
TL6032	B-1
TL6033	B-10

Connector	
FP3201	B-2
P3701	B-5
PS3001	A-8
PS3002	B-4

Crystal OScillator	
X2001	A-2
X2002	A-3
X3001	A-5
X3003	B-4
X3004	A-4
X6001	A-1

Coil	
L2001	A-9
L2002	B-9
L3001	A-4
L3002	A-4
L3003	A-7
L3004	A-6
L3005	A-4
L3006	A-5
L3007	A-7
L3008	B-5
L3009	B-5
L3010	A-5
L3201	B-7
L3202	B-9
L3204	B-7
L3205	B-7
L3208	B-8
L3210	B-9
L4201	B-4
L4501	B-7
L4502	B-7
LB2002	A-9
LB2003	A-10
LB2004	A-3
LB3001	A-5
LB3002	A-6
LB3004	A-3
LB3006	A-7
LB3701	B-5
LB3702	B-6
LB3703	B-6
LB3704	B-6
LB6004	A-9

Capacitor	
C2002	A-9
C2003	A-9
C2004	B-9
C2005	A-9
C2006	A-9
C2007	B-9
C2008	B-9
C2009	B-2
C2010	B-2
C2011	A-10
C2012	A-10
C2013	A-10
C2014	B-3
C2015	B-3
C2016	A-2
C2017	A-2
C2018	A-9
C2019	A-9
C2020	A-9
C2021	B-3
C2022	A-3
C2023	A-3
C2024	B-9
C2025	A-3
C2026	B-3
C2027	B-10
C2028	B-9
C2029	A-9
C2030	A-9
C2031	B-2
C2032	A-9
C2033	B-2
C3001	A-4
C3002	A-4
C3003	A-7
C3004	A-7
C3005	B-7
C3006	A-7
C3007	B-4
C3008	B-4
C3010	B-7
C3011	B-4
C3012	B-4
C3013	B-4
C3014	B-7
C3015	B-4
C3016	B-4
C3017	B-7
C3018	A-4
C3019	A-4
C3020	B-4
C3021	A-7
C3023	A-7
C3024	A-4
C3025	A-7
C3026	B-5
C3027	A-6
C3028	A-6
C3029	B-5
C3030	B-5
C3031	A-7
C3032	A-7
C3033	B-7
C3034	A-7
C3035	B-5
C3036	B-5
C3037	B-6
C3038	B-6
C3039	B-6
C3040	B-6
C3041	B-5
C3042	A-5
C3043	A-4
C3044	A-4
C3045	A-4
C3046	A-4
C3047	A-4
C3048	A-4
C3049	A-6
C3050	A-4
C3051	A-4
C3052	A-6
C3053	A-4
C3054	A-4
C3056	A-6
C3057	A-6
C3058	A-6
C3059	B-7
C3060	A-5
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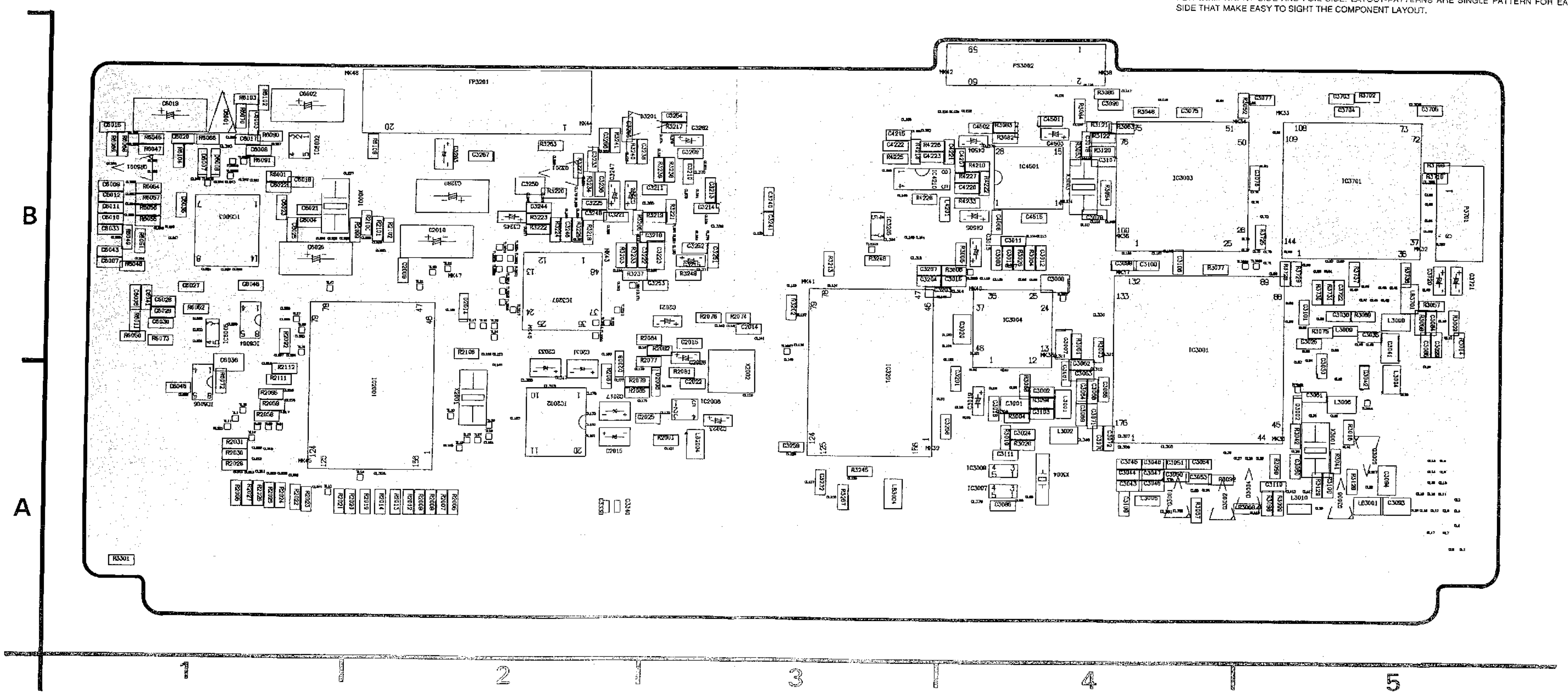
C3319	A-9
C3320	A-9
C3321	A-9
C3322	A-9
C3323	A-9

ADDRESS INFORMATION

NOTE: MULTILAYER C.B.A.

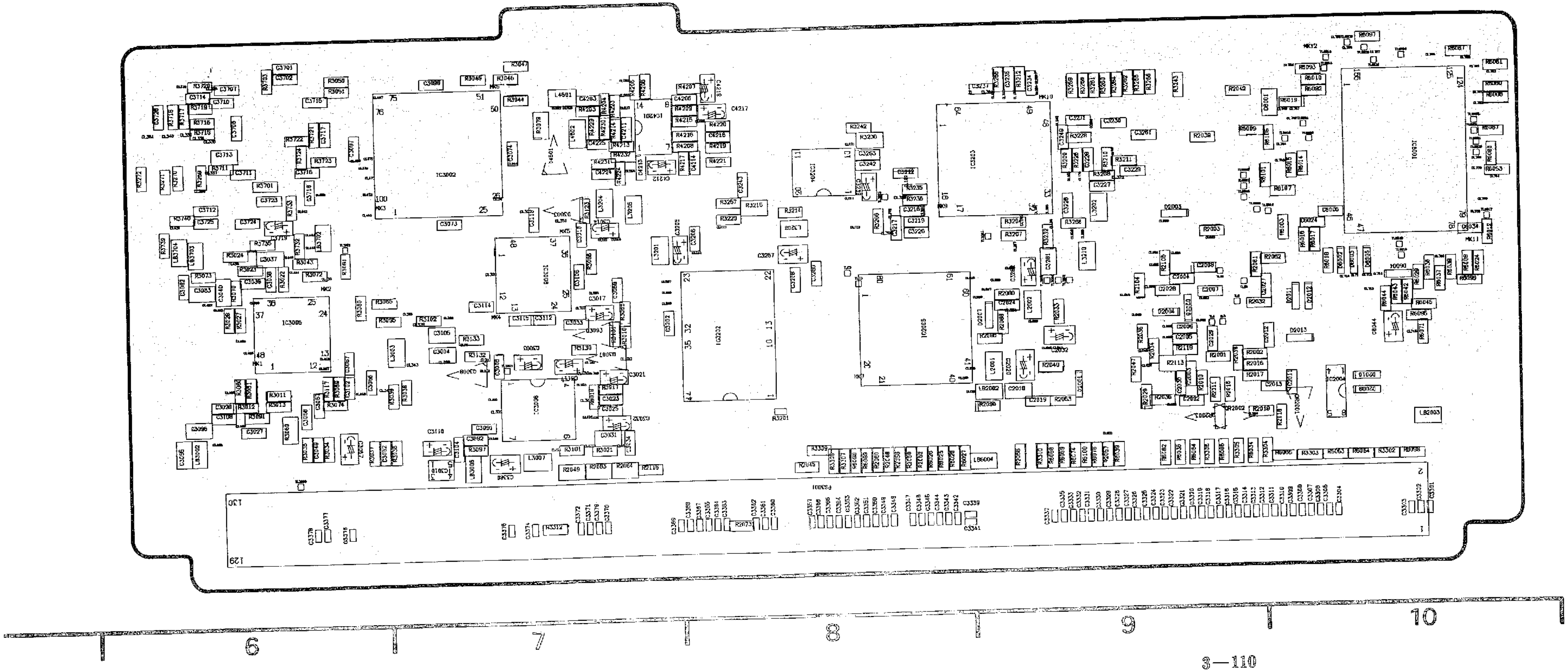
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.



AV DIGITAL C.B.A. (2)

C3324	A-9	C3351	A-8	C3380	A-7	C4203	B-7	C6002	B-1	C6030	B-1	R2016	A-9	R2045	A-8	R2082	B-3	R3006	B-4	R3041	A-5	R3070	B-6	R3101	A-7	R3213	B-3	R3240	B-2	R3302	A-10	R3724	B-6	R4217	B-8
C3325	A-9	C3352	A-8	C3701	B-6	C4206	B-8	C6003	B-1	C6033	B-1	R2017	A-9	R2047	A-9	R2084	B-3	R3009	B-5	R3042	A-5	R3072	B-6	R3102	B-7	R3214	B-8	R3241	B-2	R3303	A-10	R3725	B-5	R4218	B-3
C3326	A-9	C3353	A-8	C3702	B-6	C4207	B-4	C6004	B-1	C6034	B-10	R2018	A-9	R2048	A-8	R2085	A-2	R3010	A-7	R3043	B-6	R3073	B-6	R3117	A-6	R3215	B-8	R3242	B-8	R3304	A-9	R3728	B-5	R4219	B-8
C3327	A-9	C3354	A-8	C3703	B-5	C4211	B-7	C6005	B-10	C6035	B-1	R2019	A-2	R2049	A-7	R2086	A-9	R3011	A-6	R3044	B-7	R3074	A-6	R3120	B-4	R3217	B-3	R3243	B-9	R3305	A-9	R3729	B-5	R4220	B-8
C3328	A-9	C3355	A-8	C3704	B-5	C4212	B-7	C6006	B-1	C6036	B-1	R2020	A-2	R2050	A-8	R2087	A-2	R3012	A-6	R3046	B-7	R3075	B-5	R3121	B-4	R3218	B-2	R3245	A-3	R3306	A-9	R3730	B-5	R4221	B-8
C3329	A-9	C3356	A-8	C3705	B-5	C4213	B-7	C6007	B-1	C6041	B-1	R2021	A-1	R2052	A-8	R2088	A-9	R3013	A-6	R3047	B-7	R3077	B-4	R3122	B-4	R3219	B-3	R3248	B-3	R3307	A-8	R3731	B-5	R4222	B-4
C3330	A-9	C3357	A-8	C3706	B-6	C4214	B-8	C6008	B-1	C6043	B-1	R2022	A-1	R2055	A-1	R2090	A-9	R3014	B-5	R3048	B-4	R3079	B-7	R3123	B-7	R3220	B-2	R3249	B-3	R3308	A-8	R3732	B-6	R4223	B-7
C3331	A-9	C3360	A-8	C3707	B-6	C4215	B-3	C6009	B-1	C6044	A-10	R2023	A-1	R2056	A-8	R2092	B-1	R3016	A-5	R3049	B-7	R3080	B-6	R3128	A-5	R3221	B-3	R3256	B-9	R3309	A-8	R3733	B-6	R4224	B-7
C3332	A-9	C3361	A-8	C3710	B-6	C4217	B-8	C6010	B-1	C6045	A-1	R2024	A-1	R2057	A-9	R2099	B-2	R3017	A-7	R3050	B-6	R3081	B-6	R3129	A-5	R3222	B-2	R3257	B-8	R3310	A-9	R3735	B-6	R4225	B-3
C3333	A-9	C3362	A-8	C3711	B-6	C4218	B-8	C6011	B-1	C6046	B-1	R2025	A-1	R2058	A-1	R2100	B-2	R3018	A-7	R3051	B-6	R3082	B-4	R3130	A-7	R3223	B-2	R3258	B-9	R3312	A-7	R3736	B-5	R4226	B-3
C3335	A-9	C3363	A-8	C3712	B-6	C4219	B-8	C6012	B-1	**Resistor**		R2026	A-1	R2059	A-1	R2101	B-2	R3019	A-4	R3052	B-5	R3083	B-4	R3131	A-7	R3224	B-2	R3259	B-9	R3701	B-6	R3737	B-5	R4227	B-4
C3337	A-9	C3364	A-8	C3713	B-6	C4220	B-4	C6015	B-1			R2027	A-1	R2060	A-8	R2102	B-2	R3020	A-4	R3053	B-4	R3084	B-4	R3132	A-7	R3225	B-2	R3260	B-9	R3702	B-5	R3739	B-6	R4228	B-3
C3338	A-2	C3365	A-8	C3714	B-6	C4221	B-4	C6017	B-1	R2001	A-9	R2028	A-9	R2061	B-9	R2104	B-9	R3021	A-7	R3054	B-4	R3085	B-4	R3133	A-7	R3226	B-9	R3261	B-9	R3703	B-6	R3740	B-6	R4229	B-7
C3339	A-8	C3367	A-8	C3715	B-6	C4222	B-3	C6018	B-1	R2002	A-9	R2029	A-1	R2062	B-10	R2105	B-9	R3022	B-6	R3057	B-5	R3086	B-7	R3201	B-8	R3227	B-2	R3262	B-9	R3709	B-5	R4203	B-7	R4230	B-7
C3340	A-2	C3368	A-8	C3716	B-6	C4223	B-3	C6019	B-1	R2003	B-9	R2030	A-1	R2063	A-7	R2106	B-2	R3023	B-6	R3058	B-5	R3088	A-4	R3202	B-3	R3228	B-9	R3263	B-2	R3710	B-5	R4204	B-7	R4231	B-7
C3341	A-8	C3369	A-7	C3717	B-6	C4224	B-7	C6020	B-1	R2006	A-2	R2031	A-1	R2064	A-7	R2111	A-1	R3024	B-6	R3059	A-6	R3089	A-6	R3203	B-2	R3229	B-8	R3264	B-9	R3711	B-6	R4205	B-7	R4232	B-7
C3342	A-8	C3370	A-7	C3718	B-6	C4225	B-7	C6021	B-1	R2007	A-2	R2032	B-9	R2065	A-1	R2112	A-1	R3026	B-4	R3060	A-6	R3090	A-5	R3204	B-9	R3230	B-8	R3265	B-9	R3715	B-6	R4206	B-7	R4233	B-4
C3343	A-8	C3371	A-7	C3719	B-6	C4501	B-4	C6022	B-1	R2008	A-2	R2033	B-9	R2068	A-9	R2113	A-9	R3027	B-6	R3061	A-6	R3091	A-6	R3205	B-2	R3232	B-9	R3266	B-9	R3716	B-6	R4207	B-8	R6001	B-1
C3344	A-8	C3372	A-7	C3720	B-5	C4502	B-4	C6023	B-1	R2009	A-2	R2034	A-9	R2073	A-8	R2115	A-7	R3028	B-6	R3063	B-4	R3092	A-4	R3206	B-8	R3233	B-2	R3267	A-3	R3717	B-6	R4208	B-8	R6003	B-10
C3345	A-8	C3374	A-7	C3721	B-5	C4503	B-4	C6024	B-10	R2010	A-9	R2035	A-9	R2074	B-3	R2118	A-10	R3034	A-6	R3064	B-4	R3094	A-4	R3207	B-9	R3234	B-2	R3268	B-9	R3718	B-6	R4209	B-8	R6006	B-10
C3346	A-8	C3375	A-7	C3722	B-5	C4504	B-4	C6025	B-1	R2011	A-9	R2036	A-9	R2076	B-3	R2119	A-9	R3035	A-6	R3065	B-6	R3095	B-6	R3208	B-9	R3235	B-8	R3269	B-6	R3719	B-6	R4210	B-4	R6008	B-10
C3347	A-8	C3376	A-6	C3723	B-6	C4505	B-4	C6026	B-1	R2012	A-2	R2038	A-9	R2077	B-3	R3001	B-4	R3036	A-7	R3066	B-7	R3097	A-7	R3209	B-9	R3236	B-8	R3270	B-6	R3720	B-6	R4213	B-7	R6009	B-9
C3348	A-8	C3377	A-6	C3724	B-6	C4506	B-4	C6027	B-1	R2013	A-2	R2039	B-9	R2079	A-2	R3003	B-4	R3037	A-6	R3067	A-4	R3098	A-5	R3210	B-9	R3237	B-2	R3271	B-6	R3721	B-6	R4214	B-7	R6010	B-10
C3349	A-8	C3378	A-7	C3725	B-6	C4515	B-4	C6028	B-1	R2014	A-2	R2040	A-9	R2080	B-9	R3004	A-4	R3038	A-7	R3068	A-5	R3099	A-5	R3211	B-9	R3238	B-3	R3272	B-6	R3722	B-6	R4215	B-8	R6011	B-1
C3350	A-8	C3379	A-7	C3726	B-6	C6001	B-10	C6029	B-1	R2015	A-9	R2042	B-9	R2081	A-3	R3005	B-4	R3039	A-7	R3069	A-5	R3100	A-5	R3212	B-9	R3239	B-3	R3301	A-1	R3723	B-6	R4216	B-8	R6012	B-10

ADDRESS INFORMATION



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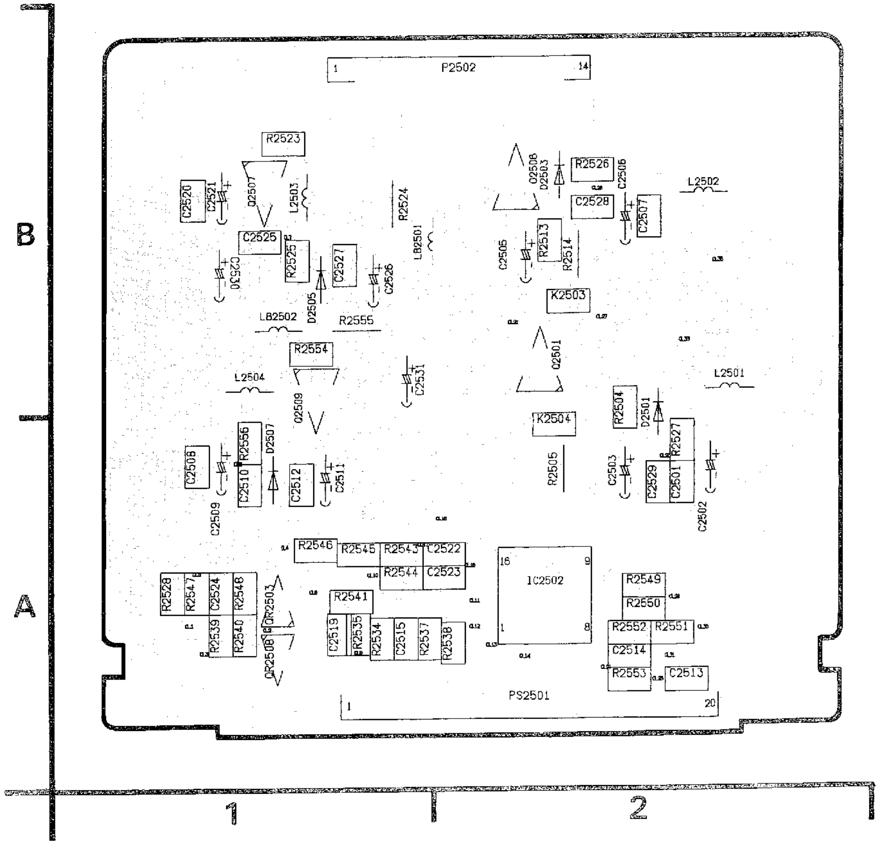
R6014	B-10	R6027	A-8	R6042	B-10	R6051	B-1	R6060	B-10	R6070	B-1	R6085	A-9	R6097	B-10	R6107	B-10
R6015	B-10	R6028	A-8	R6043	B-10	R6052	B-1	R6061	B-10	R6071	A-10	R6087	B-10	R6098	A-10	R6108	B-2
R6016	B-10	R6029	B-10	R6044	B-10	R6053	B-10	R6063	A-10	R6072	A-1	R6089	A-8	R6099	B-10		
R6017	B-10	R6034	A-9	R6045	B-10	R6054	B-1	R6064	A-10	R6073	B-1	R6090	B-1	R6100	A-9		
R6018	B-10	R6035	A-9	R6046	B-1	R6055	B-1	R6065	A-10	R6074	A-9	R6091	B-1	R6101	B-10		
R6019	B-10	R6036	B-10	R6047	B-1	R6056	B-1	R6066	B-1	R6075	A-9	R6092	B-10	R6102	B-1		
R6024	B-10	R6037	B-10	R6048	B-1	R6057	B-1	R6067	B-10	R6080	B-10	R6093	B-10	R6103	B-1		
R6025	A-8	R6038	B-10	R6049	B-1	R6058	A-9	R6068	B-1	R6082	A-9	R6095	A-10	R6104	B-1		
R6026	A-8	R6039	A-9	R6050	B-1	R6059	A-9	R6069	B-1	R6084	A-9	R6096	A-8	R6105	B-10		

ADDRESS INFORMATION

3-40. MOTOR DRIVE C B A (VEP06C89A)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R2548
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R2540
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QR2508
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R2535
R2534
C2515
R2537
R2538
R2552
R2551
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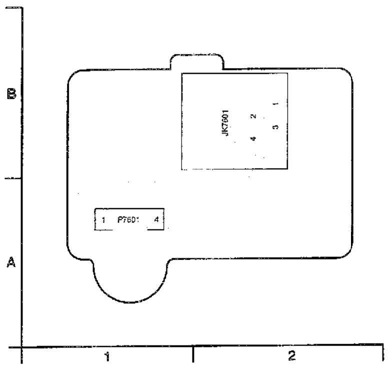
R2553
C2513
PS2501
20
B
A
1
2

3-41 MODULAR C.B.A. (VEP07966A)


JK7601
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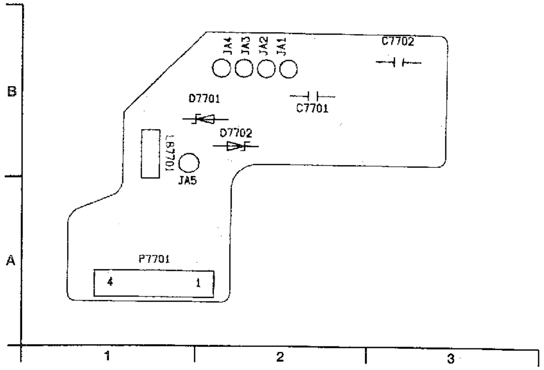
3
4
P7601
B
A
1
2

3-42. IR C.B.A. (VEP07968B)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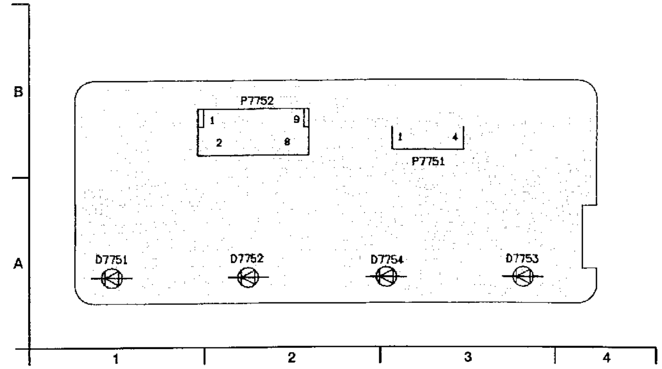
JA3
JA2
JA1
C7702
D7701
C7701
D7702
LB7701
JA5
P7701
4
1
B
A
1
2
3

3-43 FRONT LED C B A (VEP07965A)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P7751
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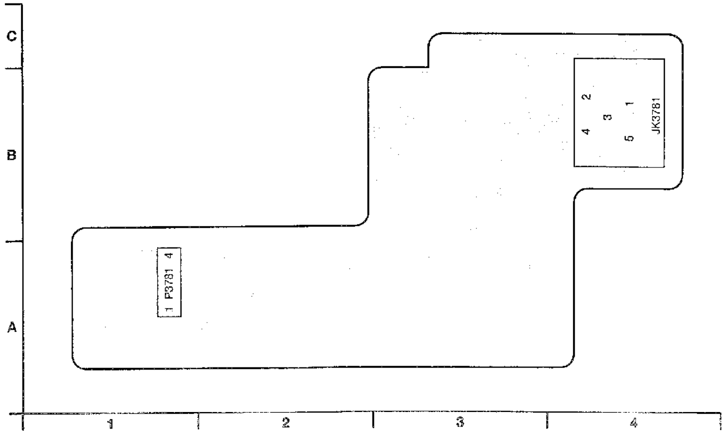
D7751
D7752
D7754
D7753
B
A
1
2
3
4

3-44 5P JACK C B A (VEP03E18A)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2
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P3781
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C
B
A
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2
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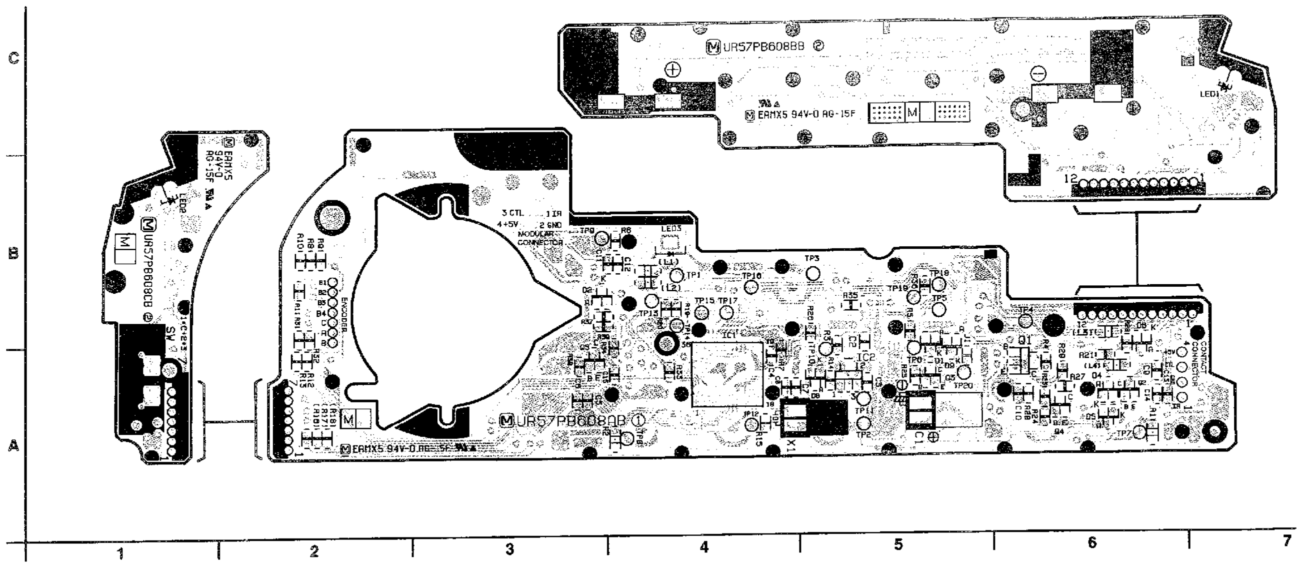
4

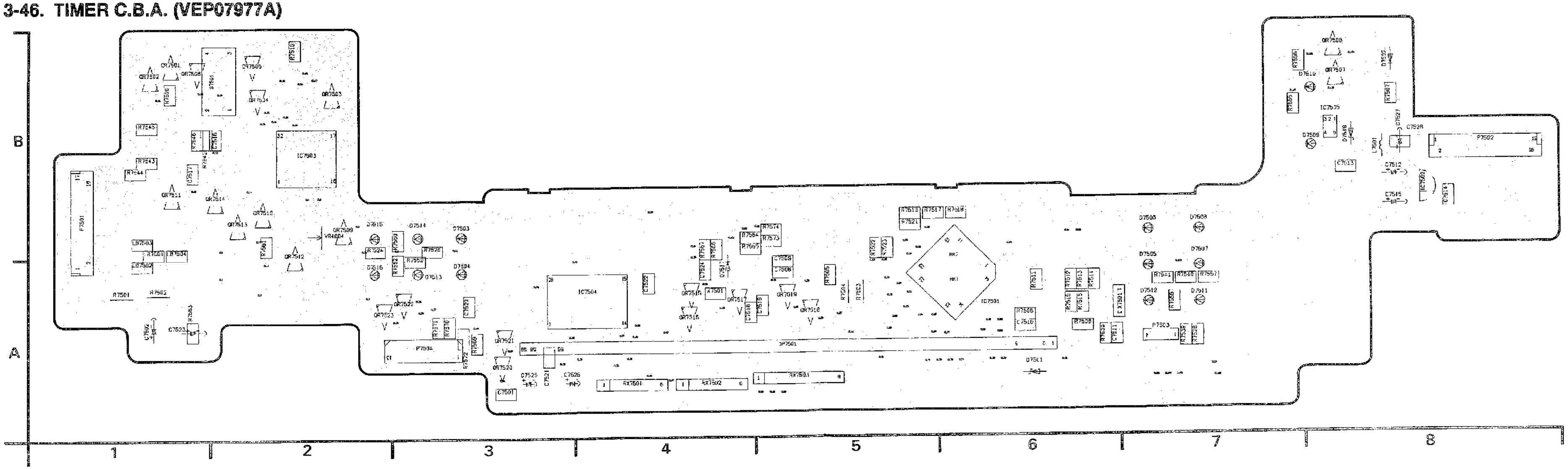
3-45 EDITING CONTROLLER C.B.A. (UR57VPB623)


C
B
A
1
2
3
4
5
6
7
UR57PB608BB ②
ERMX5 94V-0 RG-15F
LED1
12
1
ERMX5 94V-0 RG-15F
LED2
UR57PB608CB ②
SW
M
ENCODER
3 CTL 1 IR
4 +5V 2 GND
MODULAR CONNECTOR
LED3
IC1
IC2
Q1
X1
C1
TP1
TP3
TP15
TP17
TP18
TP19
TP20
CONTACT CONNECTOR
UR57PB608AB ①
ERMX5 94V-0 RG-15F

TIMER C.B.A.			
Transistor & Resistor		**Integrated Circuit**	
QR7501	B-1	IC7501	A-6
QR7502	B-1	IC7502	B-8
QR7503	B-2	IC7503	B-2
QR7504	B-2	IC7504	A-4
QR7505	B-2	IC7505	B-8
QR7506	B-1	**Adjustment**	
QR7507	B-8	VR4004	B-2
QR7508	B-8	**Connector**	
QR7509	B-2		
QR7510	B-2		
QR7511	B-1	P7501	B-1
QR7512	B-2	P7502	B-8
QR7513	B-2	P7503	A-7
QR7514	B-2	P7504	A-3
QR7515	A-4		
QR7516	A-4		
QR7517	A-4		
QR7518	A-5		
QR7519	A-5		
QR7520	A-3		
QR7521	A-3		
QR7522	A-3		
QR7523	A-2		

ADDRESS INFORMATION

3-46. TIMER C.B.A. (VEP07977A)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7
8
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IC7501
IC7505
P7504
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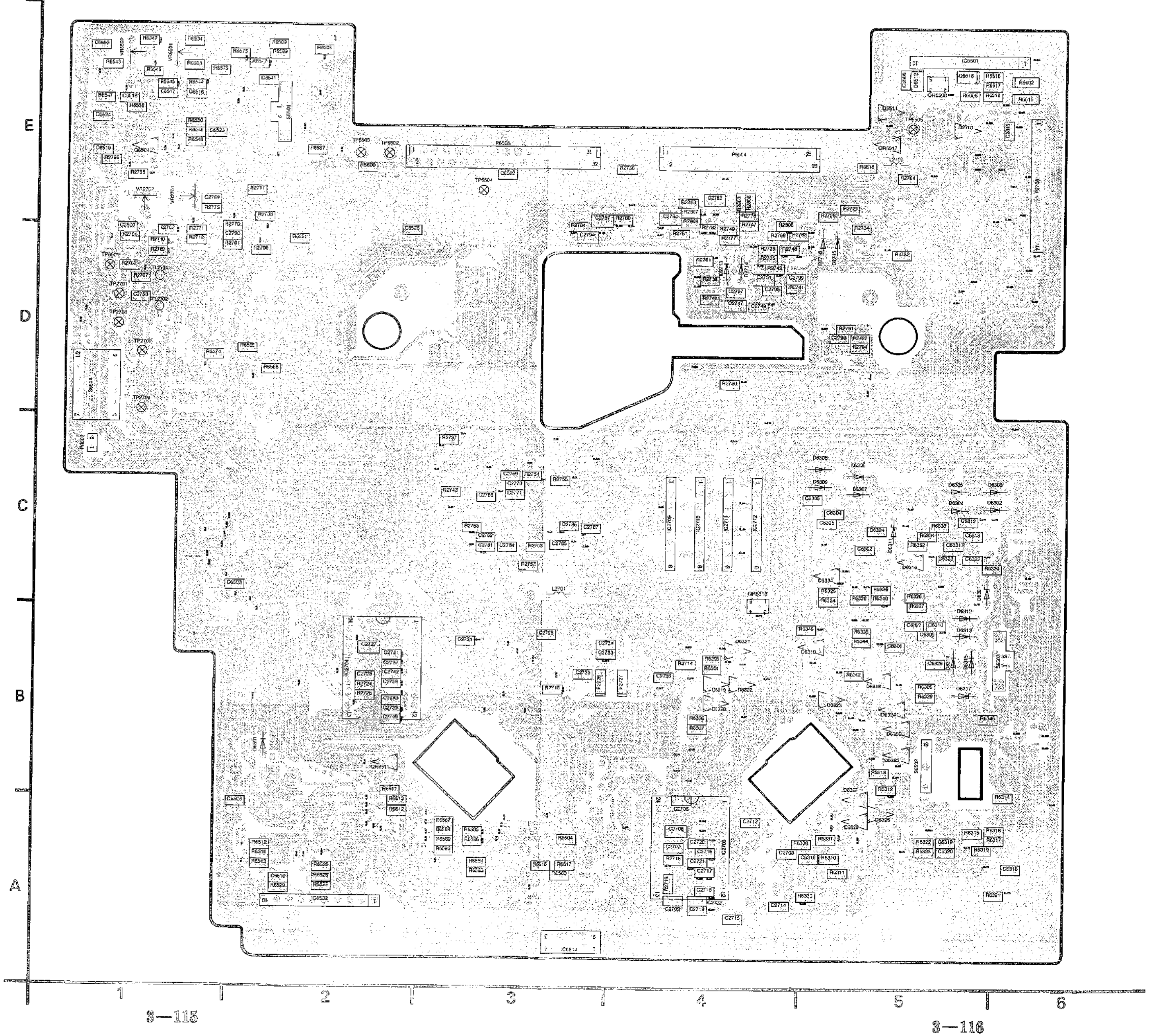
P7503
VR4004
QR7501
QR7502
QR7503
QR7508
QR7507
RX7501
RX7502
RX7503

3-47. MECHANISM DRIVE C.B.A. (VEP02557B)


E
D
C
B
A
1
2
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4
5
6
IC6601
P6505
P6504
IC6532
IC6514
IC2709
IC2710
IC2711
IC2712
IC2704
IC2706
TP6503
TP6502
TP6504
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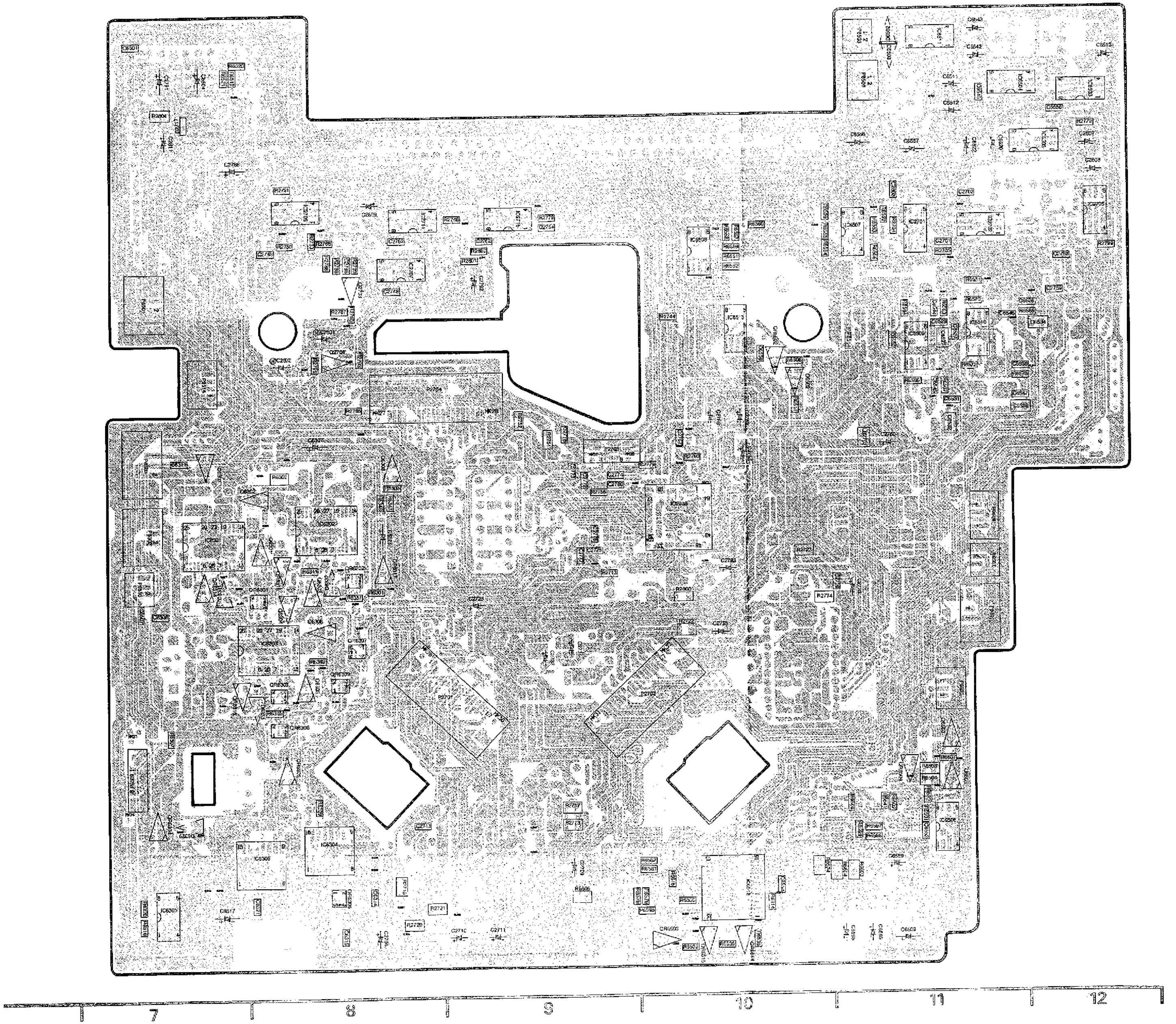
TP2701
TP2702
TP2703
TP2704
TP6501
VR6501
VR6502
VR2701
L2701



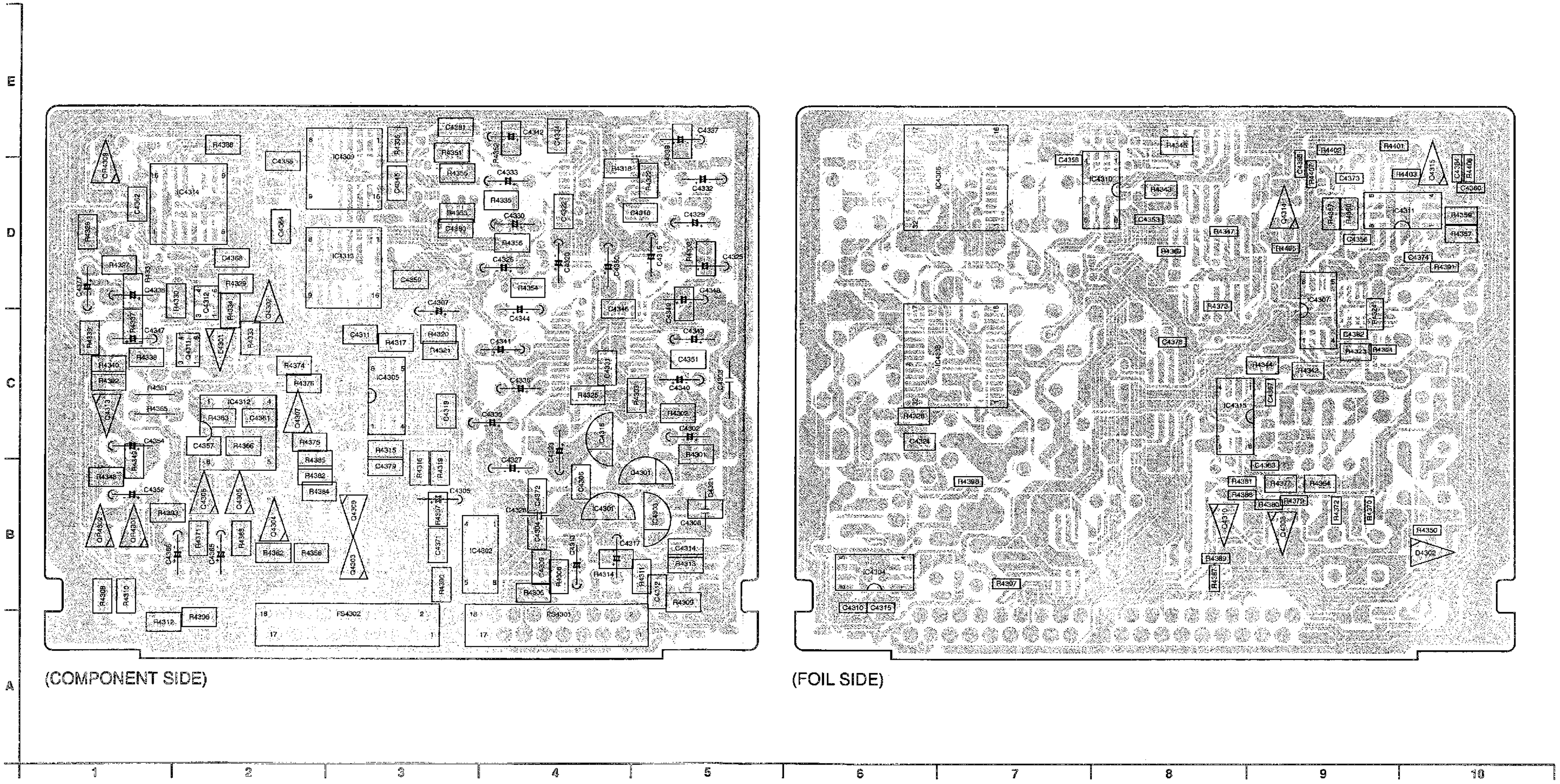
MECHANISM DRIVE C.B.A.	
Transistor	
Q2701	E-5
Q2703	D-8
Q2704	D-8
Q6301	C-8
Q6302	C-8
Q6303	C-8
Q6304	B-8
Q6305	B-8
Q6306	B-8
Q6307	C-7
Q6308	C-8
Q6502	D-10
Q6503	B-11
Q6504	E-1
Q6505	B-11
Transistor & Resistor	
QR2701	E-8
QR6301	C-8
QR6302	C-8
QR6303	B-8
QR6304	A-7
QR6305	B-8
QR6306	A-8
QR6307	B-8
QR6308	B-8
QR6309	B-8
QR6314	C-7
QR6315	C-8
QR6316	B-7
QR6317	C-8
QR6318	C-4
QR6501	E-8
QR6502	D-10
QR6503	A-10
QR6504	B-11
QR6505	B-10
QR6506	A-10
QR6507	A-10
QR6508	E-5
QR6511	B-2
QR6514	A-10
QR6515	A-10
QR6516	E-8
QR6517	E-5
Integrated Circuit	
IC2701	D-11
IC2702	D-11
IC2703	A-4
IC2704	B-2
IC2705	E-12
IC2706	E-8
IC2707	D-8
IC2708	C-10
IC2709	C-4
IC2710	C-4
IC2711	C-4
IC2712	C-4
IC2713	D-12
IC2714	D-8
IC2715	D-9
IC6301	C-7
IC6302	C-8
IC6303	B-8
IC6304	A-8
IC6305	A-7
IC6306	A-8
IC6501	E-5
IC6502	A-2
IC6503	E-12
IC6504	E-12
IC6505	E-12
IC6506	A-11
IC6507	D-11
IC6508	D-10
IC6509	D-11
IC6510	D-11
IC6511	E-10
IC6512	A-10
IC6513	D-10
IC6514	A-3
Test Point	
TL2701	D-1
TL2702	D-1
TP2701	D-1
TP2702	D-1
TP2703	D-1
TP2704	D-1
TP6501	D-1
TP6502	E-2
TP6503	E-2
TP6404	E-3
TP6505	E-5
Adjustment	
VR2701	E-1
VR2702	E-1
VR6501	E-1
VR6502	E-1
Connector	
P2701	B-8
P2702	B-10
P2703	C-9
P2704	D-8
P2705	E-6
P6301	B-11
P6302	C-7
P6303	C-7
P6501	D-7
P6502	C-1
P6503	E-11
P6504	E-4
P6505	E-3
P6506	E-11
P6507	C-11
P6508	C-11
P6509	B-7
P6510	C-7
P6514	D-7
P6520	B-11

ADDRESS INFORMATION

3-48 AUDIO C.B.A (VEP04669B)

AUDIO C.B.A.	
Transistor	
Q4301	B-5
Q4302	C-2
Q4303	B-3
Q4304	B-2
Q4305	B-2
Q4306	B-2
Q4307	C-2
Q4308	B-9
Q4309	B-3
Q4310	B-8
Q4311	C-2
Q4312	D-2
Q4313	C-1
Q4314	D-9
Q4315	D-10
Transistor & Resistor	
QR4301	B-1
QR4302	B-1
QR4303	D-1
Integrated Circuit	
IC4301	B-4
IC4302	B-3
IC4303	B-5
IC4304	B-6
IC4305	C-3
IC4306	D-6
IC4307	D-9
IC4308	C-6
IC4309	E-3
IC4310	D-8
IC4311	D-9
IC4312	C-2
IC4313	D-3
IC4314	D-2
IC4315	C-8
IC4316	C-4
Connector	
PS4301	A-4
PS4302	A-3

ADDRESS INFORMATION



(COMPONENT SIDE)

(FOIL SIDE)

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B
A
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9
10
IC4314
IC4309
IC4313
IC4305
IC4312
IC4302
IC4306
IC4310
IC4308
IC4307
IC4311
IC4315
IC4304
PS4302
PS4301

3-49. INPUT/OUTPUT C.B.A. (VEP03E28A)

INPUT/OUTPUT C.B.A.

Transistor	
Q3901	A-3
Q3902	B-4
Q3903	B-4
Q3904	A-4
Q3905	A-4
Q3907	A-4
Q3908	A-5
Q3909	A-5

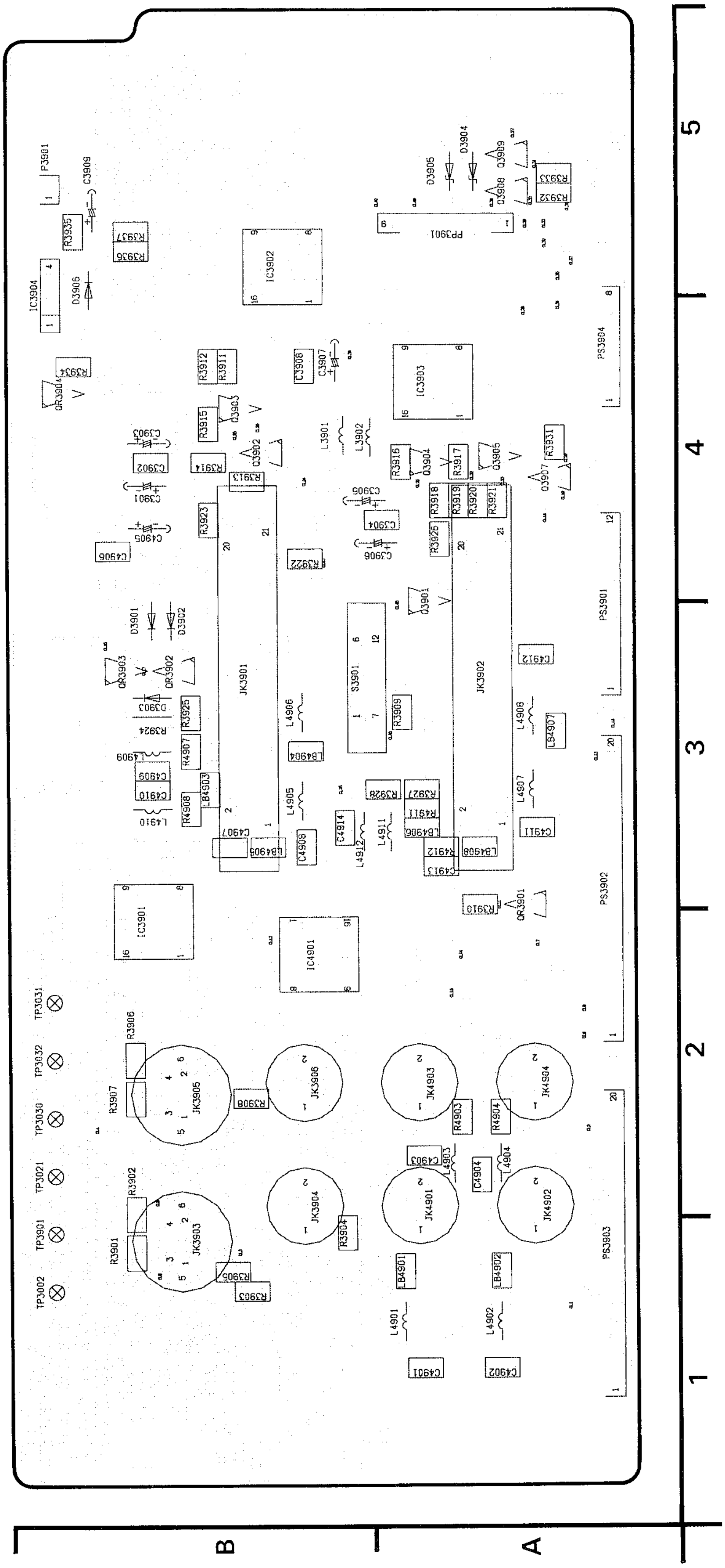
Transistor & Resistor	
QR3901	A-3
QR3902	B-3
QR3903	B-3
QR3904	B-4

Integrated Circuit	
IC3901	B-2
IC3902	B-5
IC3903	A-4
IC3904	B-4
IC4901	B-2

Test Point	
TP3002	B-1
TP3021	B-2
TP3030	B-2
TP3031	B-2
TP3032	B-2
TP3901	B-1

Connector	
P3901	B-5
PP3901	A-5
PS3901	A-3
PS3902	A-3
PS3903	A-1
PS3904	A-4

ADDRESS INFORMATION


1
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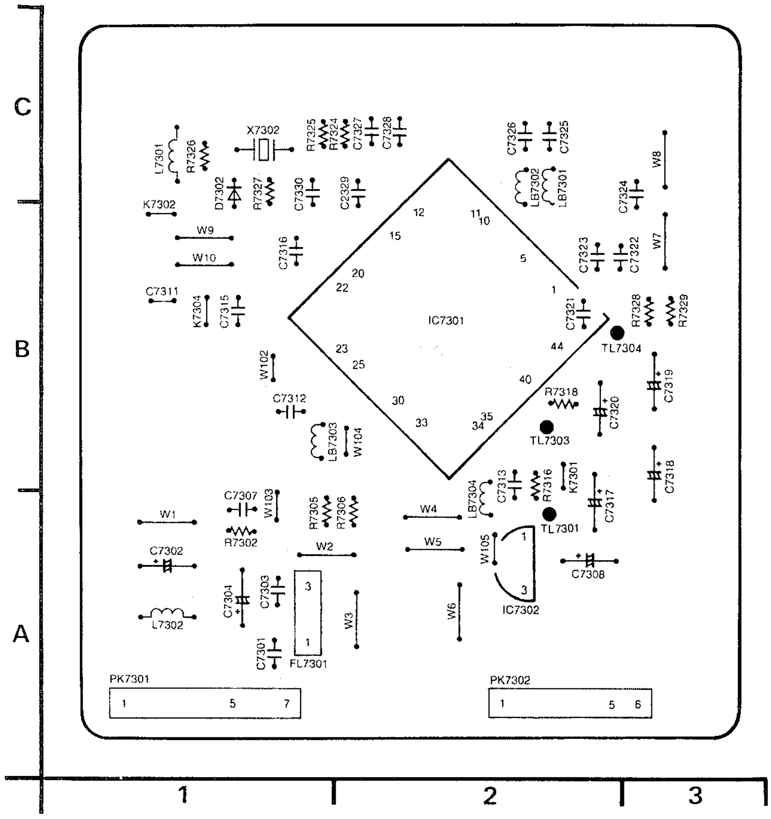
3
4
5
A
B
P3901
PP3901
PS3901
PS3902
PS3903
PS3904
IC3901
IC3902
IC3903
IC3904
IC4901
JK3901
JK3902
JK3903
JK3904
JK3905
JK3906
JK4901
JK4902
JK4903
JK4904
S3901
TP3002
TP3901
TP3021
TP3030
TP3032
TP3031
Q3901
Q3902
Q3903
Q3904
Q3905
Q3907
Q3908
Q3909
QR3901
QR3902
QR3903
QR3904
D3901
D3902
D3903
D3904
D3905
D3906
L3901
L3902
L4901
L4902
L4904
L4905
L4906
L4907
L4908
L4909
L4910
L4911
L4912

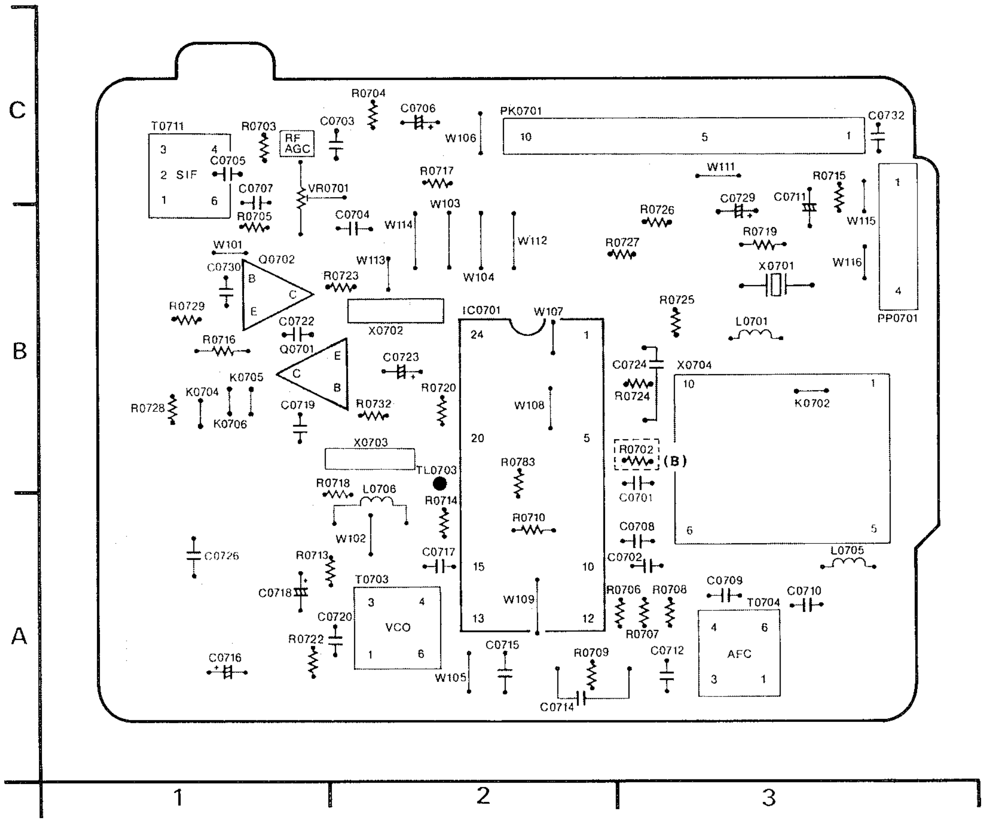
3-50. NICAM DECODER PACK C.B.A. (VEP07973A: NV-DV10000B) (VEP07973B: NV-DV10000EC)


C
B
A
1
2
3
L7301
R7326
X7302
R7325
R7324
C7327
C7328
C7326
C7325
W8
K7302
D7302
R7327
C7330
C2329
LB7302
LB7301
C7324
W9
W10
C7316
C7323
C7322
W7
C7311
K7304
C7315
IC7301
C7321
R7328
R7329
TL7304
W102
C7319
C7312
R7318
C7320
TL7303
LB7303
W104
C7318
C7307
W103
R7305
R7306
W4
LB7304
C7313
R7316
K7301
C7317
W1
R7302
TL7301
C7302
W2
W5
W105
C7308
C7304
C7303
W3
W6
IC7302
L7302
C7301
FL7301
PK7301
PK7302

NICAM DECODER PACK C.B.A.	
Integrated Circuit	
IC7301	B-2
IC7302	A-2
Test Point	
TL7301	A-2
TL7303	B-2
TL7304	B-2
Connector	
PK7301	A-1
PK7302	A-2

ADDRESS INFORMATION

3-51. TV DEMODULATOR PACK C.B.A. (VEP07801AQ: NV-DV10000B) (VEP07801AR: NV-DV10000EC)


C
B
A
1
2
3
R0704
C0706
PK0701
C0732
T0711
R0703
C0703
RF AGC
W106
SIF
C0705
R0717
W111
R0715
C0707
VR0701
W103
C0729
C0711
R0705
C0704
W114
R0726
W115
W112
R0719
W101
R0727
Q0702
W113
W104
X0701
W116
C0730
R0723
R0729
C0722
X0702
IC0701
W107
R0725
L0701
PP0701
R0716
Q0701
C0723
C0724
X0704
K0705
R0720
R0724
K0702
R0728
K0704
K0706
C0719
R0732
W108
X0703
R0702
(B)
TL0703
R0783
R0718
L0706
R0714
C0701
R0710
W102
C0708
C0726
R0713
C0717
C0702
L0705
T0703
R0706
R0708
C0709
C0710
C0718
W109
T0704
C0720
VCO
R0707
R0722
C0715
R0709
C0712
AFC
C0716
W105
C0714

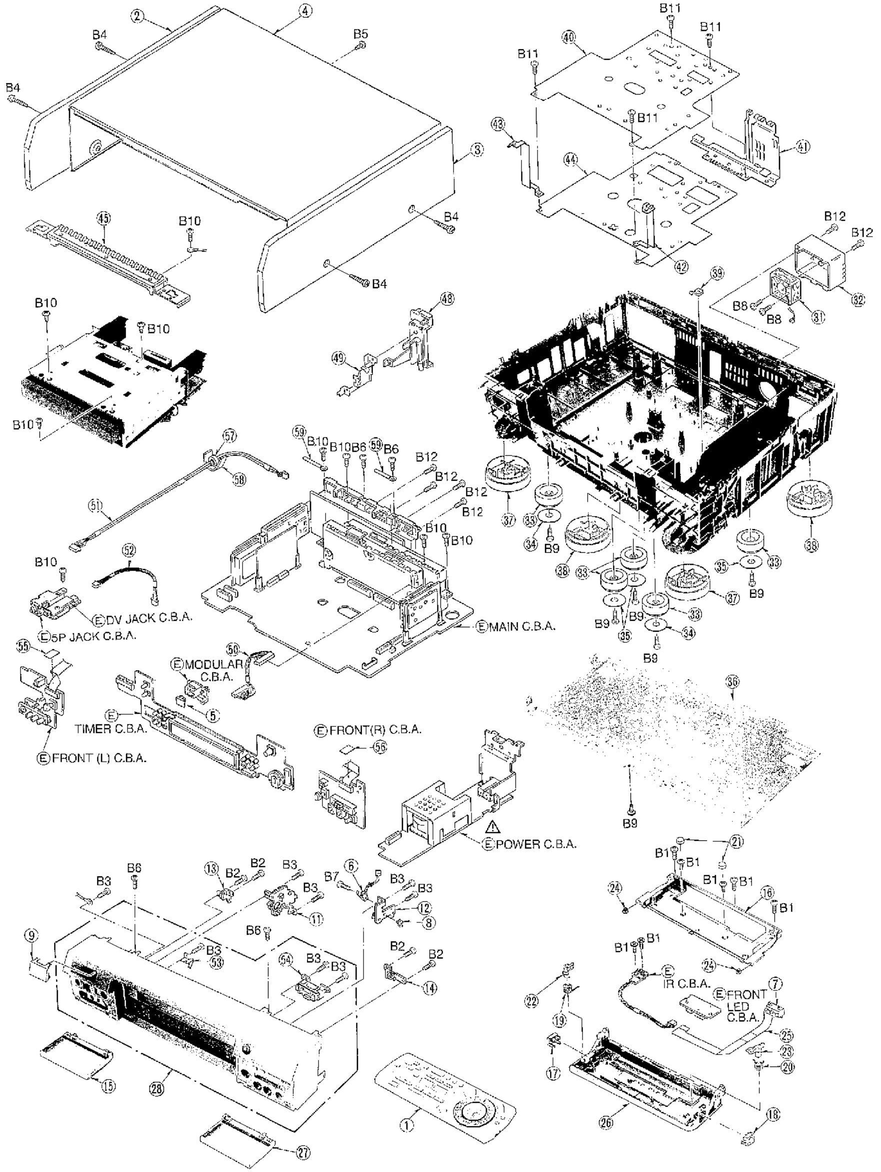
TV DEMODULATOR PACK C.B.A.	
Transistor	
Q0701	B-1
Q0702	B-1
Integrated Circuit	
IC0701	B-2
Test Point	
TL0703	B-2
Adjustment	
T0703	A-2
T0704	A-3
T0711	C-1
VR0701	C-1
Connector	
PK0701	C-2
PP0701	C-3

ADDRESS INFORMATION

SECTION 4
EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEW & MECHANICAL REPLACEMENT PARTS LIST

❶ CASING PARTS SECTION


②
④
B4
B5
B4
③
B4
B4
B11
B11
B11
B11
㊵
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B10
B10
B10
㊽
㊾
B10
B10
B6
B6
B12
B12
B12
B12
㊿
(51)
(52)
(57)
(58)
(59)
㊲
㉝
㉞
B9
B10
B10
㊳
㉟
B9
Ⓔ DV JACK C.B.A.
Ⓔ 5P JACK C.B.A.
Ⓔ MAIN C.B.A.
(55)
Ⓔ MODULAR C.B.A.
⑤
Ⓔ TIMER C.B.A.
Ⓔ FRONT(R) C.B.A.
(56)
Ⓔ FRONT (L) C.B.A.
㊱
B9
Ⓔ POWER C.B.A.
B3
B6
⑬
B2
B2
B3
B3
B7
⑥
B3
B3
⑪
⑫
⑧
B6
B3
(53)
(54)
B3
B3
B2
B2
⑭
⑨
⑮
㉘
㉗
①
㉑
B1
B1
B1
B1
B1
⑯
B1
B1
㉔
㉔
Ⓔ IR C.B.A.
Ⓔ FRONT LED C.B.A.
⑦
㉒
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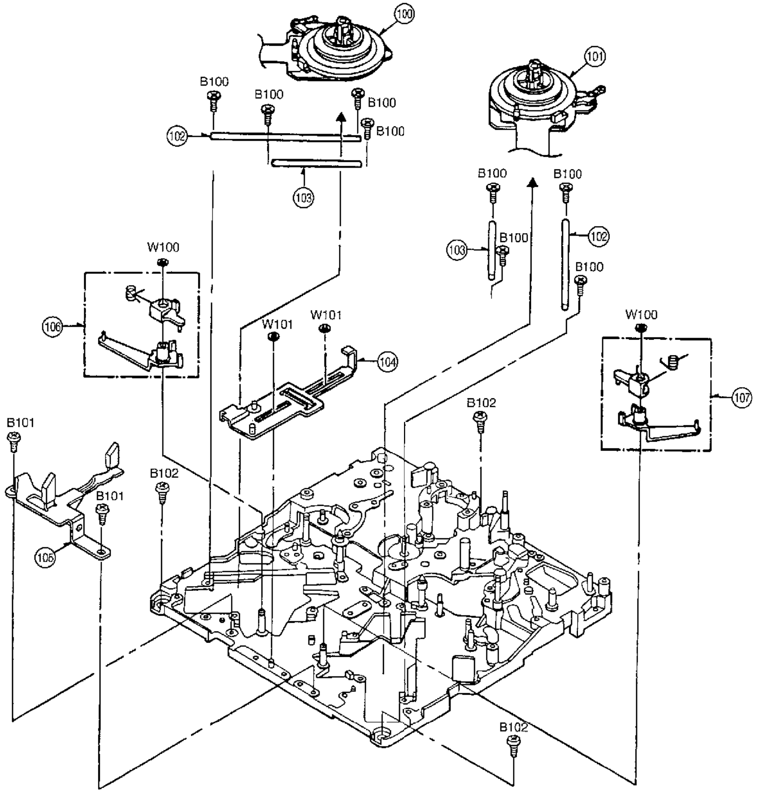
㉖
㉕
㉓
⑳
⑱

Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	EUR571501	EDITING CONTROLLER	1	
2	VGK2341	SIDE PANEL (L)	1	
3	VGK2342	SIDE PANEL (R)	1	
4	VGM1437	TOP PANEL	1	
5	VGQ4455	MODULAR CAP	1	
6	VEK8381	FRONT SW UNIT	1	
7	VGQ2807	FPC HOLDER	1	
8	VJF0496	MINI CLAMP	1	
9	VKW2399	IR WINDOW	1	
11	VXA6018	DOOR ANGLE (L) UNIT	1	
12	VXA6019	DOOR ANGLE (R)	1	
13	VXA6045	DAMPER ANGLE (L) UNIT	1	
14	VXA6046	DAMPER ANGLE (R) UNIT	1	
15	VYF2482	DOOR (L) UNIT	1	
16	VGP4836	DOOR PANEL	1	
17	VGU7918	LOCK BUTTON (L)	1	
18	VGU7919	LOCK BUTTON (R)	1	
19	VMB3186	LOCK LEVER SPRING (L)	1	
20	VMB3187	LOCK LEVER SPRING (R)	1	
21	VMG1147	RUBBER BUSH (A)	2	
22	VML3269	LOCK LEVER (L)	1	
23	VML3270	LOCK LEVER (R)	1	
24	VMT0856	CUSHION RUBBER	2	
25	VWJ1199	FLAT CARD CABLE (9P)	1	P7752-P7504
26	VYF2491	DOOR (C) 1 UNIT	1	
27	VYF2492	DOOR (R) UNIT	1	NV-DV10000B
27	VYF2484	DOOR (R) UNIT	1	NV-DV10000EC
28	VYP6892	FRONT PANEL (1) UNIT	1	NV-DV10000B
28	VYP6860	FRONT PANEL (1) UNIT	1	NV-DV10000EC
31	VRF0087	FAN MOTOR UNIT	1	
32	VKF3003	REAR COVER	1	
33	VKA0301	CERAMIC LEG	5	
34	VMG1031	LEG SHEET A	2	
35	VMG1049	LEG SHEET B	3	
36	VKU0528	BOTTOM PLATE	1	
37	VKA0123	LEG (F)	2	
38	VKA0124	LEG (R)	2	
39	VMC1065	EARTH SPRING	1	
40	VMZ2721	SHIELD SHEET	1	
41	VSC4795	SHIELD PLATE	1	
42	VSC4756	SHIELD PLATE (B3)	1	
43	VSC4757	SHIELD PLATE (B4)	1	
44	VSC4691	SHIELD PLATE	1	
45	VXA6179	TOP ANGLE UNIT	1	
48	VJH0979	ANTENNA JACK PLATE	1	
49	VMC1213	ANTENNA EARTH SPRING	1	
50	VEE0C24	WIRE CABLE (14P)	1	P2705-P2502
51	VEE0C26	WIRE CABLE (6P)	1	P3701-P7651
52	VEE0C25	WIRE CABLE (4P)	1	P3781-P6601
53	VMC1374	REDUCTION SPRING	1	
54	VXU1517	DOOR BUTTON UNIT	1	
55	VMZ2868	BARRIER (C)	1	
56	VMZ2869	BARRIER (D)	1	
57	VSQ0687	FERRITE CORE	1	
58	VMT0442	SPONGE MAT	1	
59	VJR3	CLAMPER	2	
B1	XQN26+AG6FZ	SCREW	7	
B2	XTN26+6GFZ	SCREW	4	
B3	XTN26+8GR	SCREW	8	
B4	XTB3+16GFC	SCREW	4	
B5	XTV3+8GFZ	SCREW	1	
B6	XTW3+12TR	SCREW	4	
B7	XSN2+6	SCREW	1	
B8	XTV3+20GR	SCREW	2	
B9	XTV3+8G	SCREW	6	
B10	XTV3+10GR	SCREW	9	
B11	XTV3+6G	SCREW	4	
B12	XTV3+8GFZ	SCREW	6	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

❷ CHASSIS PARTS SECTION (1)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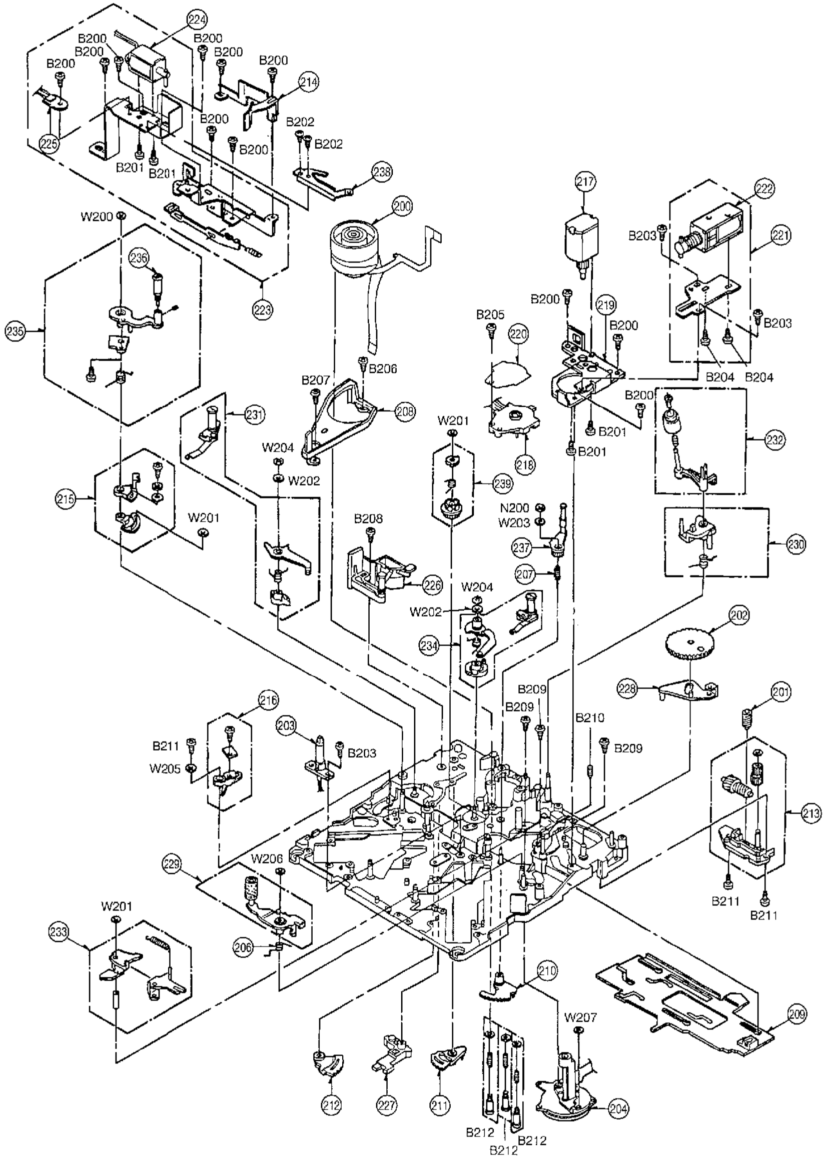
B102
W100
W101

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
100	VEM0638	S-REEL MOTOR (1) UNIT	1	
101	VEM0639	T-REEL MOTOR (1) UNIT	1	
102	VMS6462	OUTER SHAFT	2	
103	VMS5924	INNER SHAFT	2	
104	VXA6005	SLIDE ROD (1) UNIT	1	
105	VXA6006	REEL RELEASE ANGLE (1) UNIT	1	
106	VXL2589	S-BASE DRIVE ARM UNIT	1	
107	VXL2590	T-BASE DRIVE ARM UNIT	1	
B100	VHD0995	SCREW	8	
B101	XQN2+CF3	SCREW	2	
B102	XSB26+4	SCREW	3	
W100	VMX1079	WASHER	2	
W101	VMX1394	WASHER	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks

❸ CHASSIS PARTS SECTION (2)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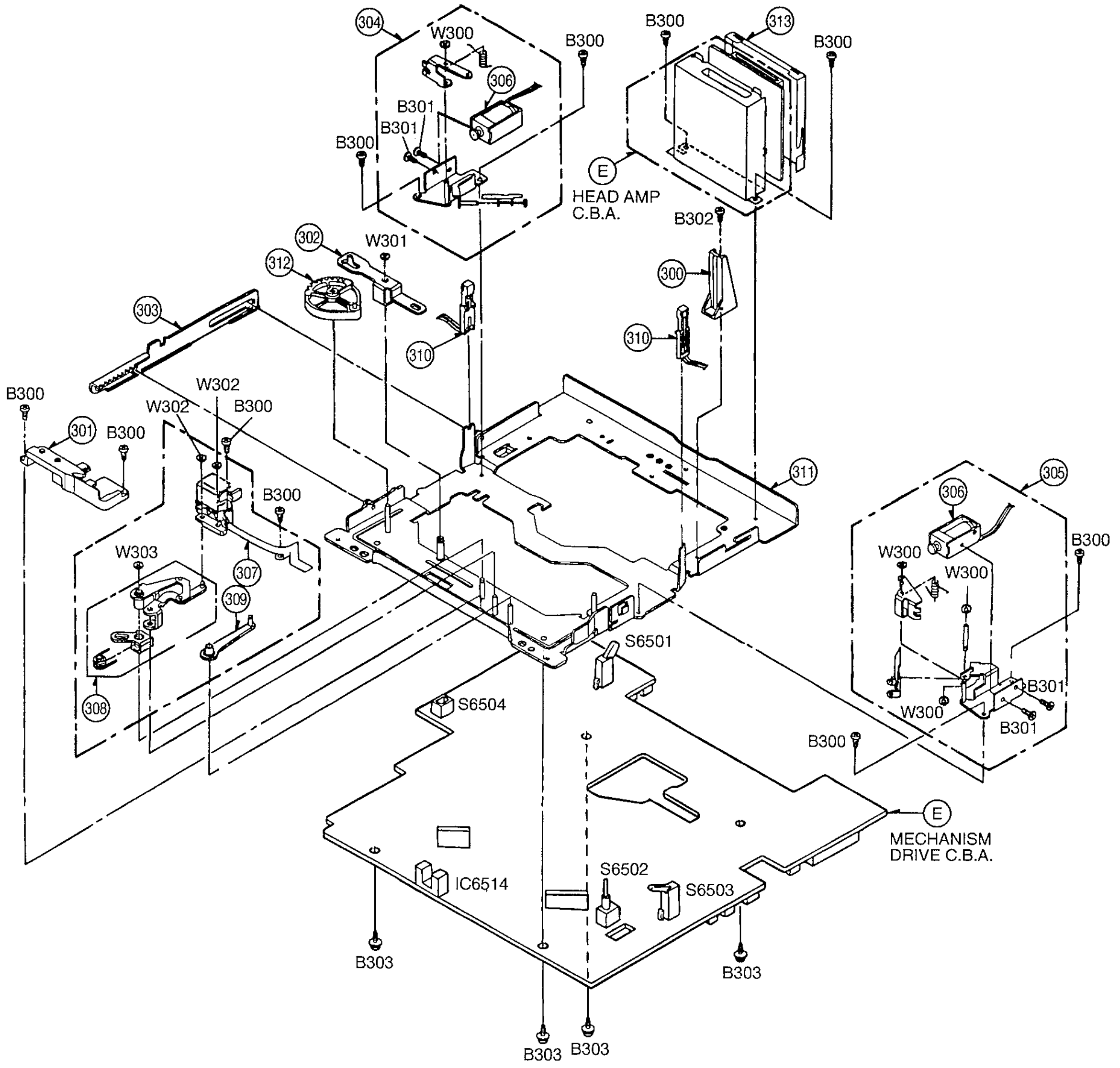
B201
B202
B203
B204
B205
B206
B207
B208
B209
B210
B211
B212
W200
W201
W202
W203
W204
W205
W206
W207
N200

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
200	VEG1440	CYLINDER UNIT	1	
201	VDG1166	MOTOR WORM GEAR	1	
202	VDG1168	MAIN CAM GEAR	1	
203	VEK8323	LED HOLDER (1) UNIT	1	
204	VEM0640	CAPSTAN (1) UNIT	1	
206	VMB2933	PINCH RETURN SPRING	1	
207	VMB2950	T4 THRUST SPRING	1	
208	VMD2533	LOADING RAIL	1	
209	VXA5563	MAIN ROD UNIT	1	
210	VXA5564	T4 SECTOR GEAR UNIT	1	
211	VXA5567	S SECTOR GEAR UNIT	1	
212	VXA5570	T SECTOR GEAR UNIT	1	
213	VXA5627	THRUST SHIFT HOLDER UNIT	1	
214	VXA5770	T1 GUIDE UNIT	1	
215	VXA5791	TEN REG. SPRING HOOK A UNIT	1	
216	VXA5820	TENSION SENSOR UNIT	1	
217	VEM0645	LOADING MOTOR (1) A UNIT	1	
218	VES0814	MODE SW UNIT	1	
219	VMA9799	MOTOR ANGLE	1	
220	VMZ2737	MODE SW COVER	1	
221	VXA6009	PINCH SOLENOID BASE (1) UNIT	1	
222	VSJ0217	PINCH SOLENOID	1	
223	VXA6010	CLEANER BASE (1) UNIT	1	
224	VSJ0222	CLEANING SOLENOID	1	
225	VEK7927	DEW SENSOR	1	
226	VXA6052	S POST BASE A UNIT	1	
227	VXL2838	TEN REG. TURN ARM UNIT	1	
228	VXL2841	MAIN CAM ARM UNIT	1	
229	VXL2835	PINCH ARM (1) UNIT	1	
230	VXL2707	T2 ARM UNIT	1	
231	VXL2709	S LOADING ARM A UNIT	1	
232	VXL2748	CLEANING ARM UNIT	1	
233	VXL2776	PINCH TURN ARM (1) UNIT	1	
234	VXL2839	T LOADING ARM UNIT	1	
235	VXL2831	TENSION ARM S (1) UNIT	1	
236	VXP1761	TENSION POST UNIT	1	
237	VXL2806	T4 ARM (1) UNIT	1	
238	VMA9753	STOPPER	1	
239	VXP1683	T4 CONNECTION GEAR UNIT	1	
B200	XQN2+CF3	SCREW	11	
B201	XQN2+A2	SCREW	4	
B202	XQN14+CF3	SCREW	2	
B203	XQN2+AM2	SCREW	3	
B204	VHD1101	SCREW	2	
B205	XQN2+CF6	SCREW	1	
B206	XQN2+AM4	SCREW	1	
B207	XQN2+A3	SCREW	1	
B208	XQN2+CF5	SCREW	1	
B209	XQN2+A35FZ	SCREW	3	
B210	VHD0356	SCREW	1	
B211	XQN2+CF4	SCREW	3	
B212	VXQ0439	SCREW	3	
W200	VMX0967	WASHER	1	
W201	VMX1061	WASHER	3	
W202	XWGV15Z32G	WASHER	2	
W203	XWE16VW	WASHER	1	
W204	XUC12FP	WASHER	2	
W205	XWE2	WASHER	1	
W206	VMX1079	WASHER	1	
W207	XWA2B	WASHER	1	
N200	VHN0312	NUT	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

❹ SUB CHASSIS PARTS SECTION


304
W300
B300
B300
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E
HEAD AMP
C.B.A.
B302
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W301
312
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B300
W302
W302
B300
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B300
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B300
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W303
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W300
B300
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S6501
308
B301
S6504
W300
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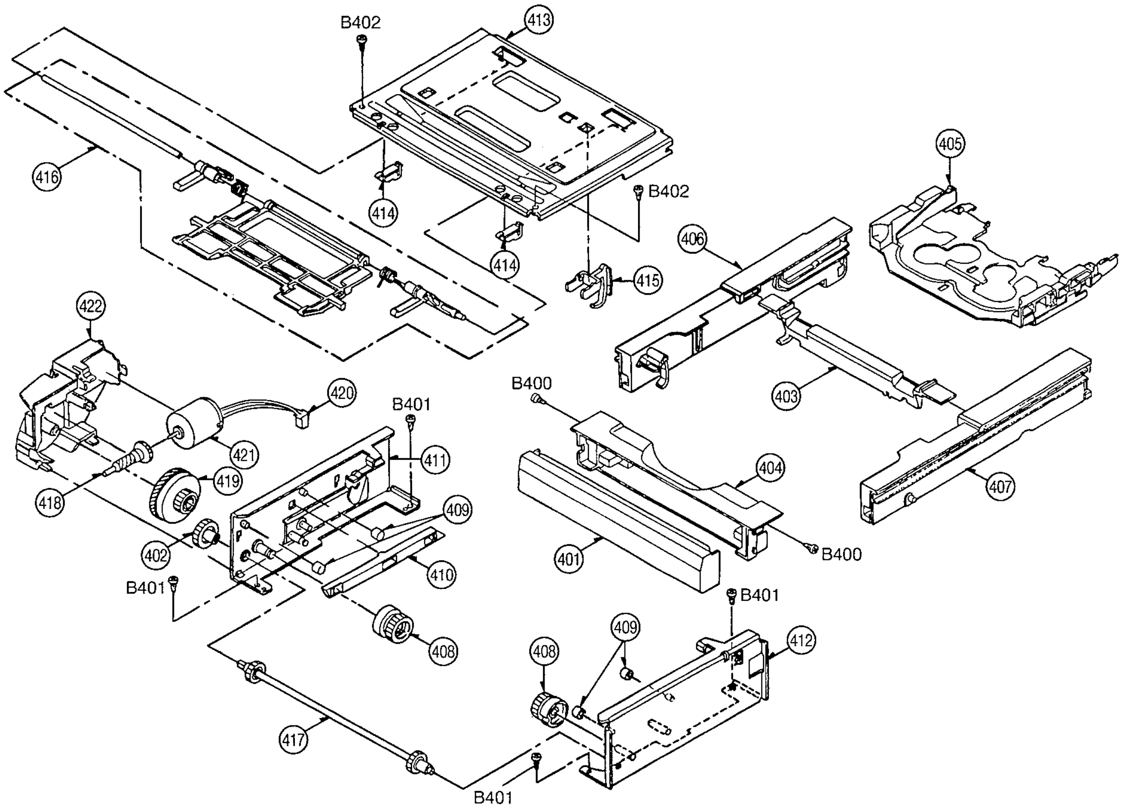
E
MECHANISM
DRIVE C.B.A.
S6502
IC6514
S6503
B303
B303
B303
B303

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
300	VMD3019	TRAY STOPPER A	1	
301	VMD2853	MIC STOPPER	1	
302	VML3292	COMMUNICATION ARM	1	
303	VML3293	TRAY CONNECTION ROD	1	
304	VXA5575	S BRAKE SOLENOID BASE UNIT	1	
305	VXA5887	T BRAKE SOLENOID BASE UNIT	1	
306	VSJ0216	BRAKE SOLENOID	2	
307	VXA6012	MIC CONNECTOR (1) UNIT	1	
308	VXL2777	MIC DRIVE ARM (1) UNIT	1	
309	VXL2780	MIC SUBLINK ARM (1) UNIT	1	
310	VEK8225	PHOTO SENSOR HOLDER (1) UNIT	2	
311	VXK1352	SUB CHASSIS (2) UNIT	1	
312	VXP1842	LOCK GEAR (1) UNIT	1	
313	VSC4699	SHIELD CASE B	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
B300	XQN2+CF3	SCREW	10	
B301	XQN2+A1.5	SCREW	4	
B302	XQN2+CF4	SCREW	1	
B303	XYN26+J5	SCREW	4	
W300	VMX0967	WASHER	4	
W301	VMX0653	WASHER	1	
W302	VMX1548	WASHER	2	
W303	VMX1079	WASHER	1	

❺ CASSETTE TRAY PARTS SECTION


B402
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B402
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B401
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B400
B401
B401
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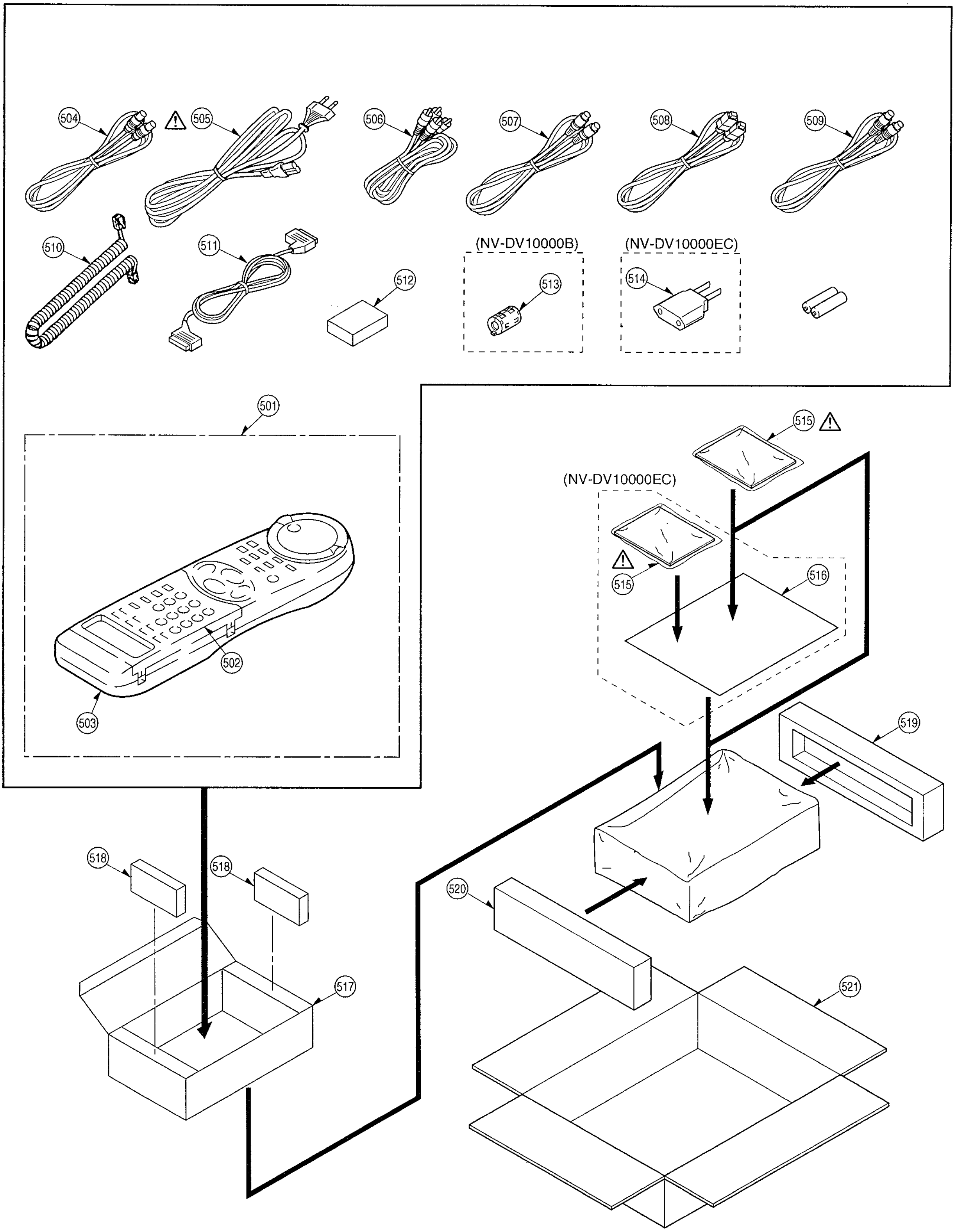
B401

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
401	VGP4837	TRAY FRONT PANEL	1	
402	VDG1263	SYNCHRO. DRIVE GEAR	1	
403	VMD2845	REAR GUIDE	1	
404	VMD2846	FRONT GUIDE	1	
405	VXA5990	CASSETTE HOLDER UNIT	1	
406	VXA5991	S RACK UNIT	1	
407	VXA5992	T RACK UNIT	1	
408	VDG1260	PINION GEAR	2	
409	VDP1687	ROLLER	4	
410	VMD2847	FRONT PROJECTION	1	
411	VXA6023	SIDE PLATE (S)	1	
412	VXA6024	SIDE PLATE (T)	1	
413	VMA9797	CASSETTE COVER	1	
414	VMD2849	TOP GUIDE	2	
415	VML3286	COVER OPEN LEVER	1	
416	VXA5999	BOOSTER (1) UNIT	1	
417	VXA6000	TRAY DRIVE SHAFT UNIT	1	
418	VDG1264	WORM GEAR	1	
419	VDG1265	WORM FOIL GEAR	1	
420	VEE0B83	MOTOR WIRE CABLE	1	
421	VEM0644	TRAY MOTOR	1	
422	VMD2850	GEAR BOX	1	
B400	XTB26+8JFZ	SCREW	2	
B401	XSN2+3R	SCREW	4	
B402	XTB2+35FFY	SCREW	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

❻ PACKING PARTS SECTION


504
505
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512
(NV-DV10000B)
513
(NV-DV10000EC)
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(NV-DV10000EC)
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Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark △ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
501	EUR571409	REMOTE CONTROLLER	1	NV-DV10000B
501	EUR571408	REMOTE CONTROLLER	1	NV-DV10000EC
502	UR57VFT617	DOOR PANEL UNIT	1	NV-DV10000B
502	UR57VFT616	DOOR PANEL UNIT	1	NV-DV10000EC
503	UR57EC559G	BATTERY COVER	1	
504	VJA0658	S-VIDEO CABLE (4P)	1	
△ 505	VJA0940	AC CORD	1	
△ 505	VJA0754	AC CORD	1	NV-DV10000EC
△ 505	VJA1059	AC CORD	1	NV-DV10000EC
506	VJA0788	AV CABLE	1	
507	VJA0963	DIN RF CABLE	1	
508	VJA1011	DV CABLE	1	
509	VJA0787	SYSTEM CORD	1	
510	VJA1045	CONTROLLER CABLE	1	
511	VJA1058	21 PIN SCART CABLE	1	
512	VFK1451	VIDEO HEAD CLEANING TAPE	1	
513	VLF1321	FERRITE CORE	1	NV-DV10000B
514	VJP2974	AC PLUG ADAPTOR	1	NV-DV10000EC
△ 515	VQT7515	OPERATING INSTRUCTION	1	NV-DV10000B
		(ENGLISH)		
△ 515	VQT7511	OPERATING INSTRUCTION	1	NV-DV10000EC
		(ENGLISH)		
△ 515	VQT7512	OPERATING INSTRUCTION	1	NV-DV10000EC
		(GERMAN)		
△ 515	VQT7513	OPERATING INSTRUCTION	1	NV-DV10000EC
		(FRENCH)		
△ 515	VQT7514	OPERATING INSTRUCTION	1	NV-DV10000EC
		(ITALIAN)		
△ 515	VQT7724	OPERATING INSTRUCTION	1	NV-DV10000EC
		(CHINESE)		
△ 515	VQT7725	OPERATING INSTRUCTION	1	NV-DV10000EC
		(RUSSIAN)		
516	VPN5090	PAD	1	NV-DV10000EC
517	VPK2204	ACCESSORIES PACKING	1	
518	VPN4999	SPACER	2	
519	VPN4748	CUSHION (R)	1	
520	VPN4749	CUSHION (L)	1	
521	VPG9182	PACKING	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

4-2. ELECTRICAL REPLACEMENT PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE: Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.
3. Unless otherwise specified,
All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICROFARADS (uf), P=uuF.
4. The P.C. Board units marked width "■" show below the main assembled parts.
5. The marking (RTL) indicaters the retention time is limited for this item.
After the discontinuation of this assembly in production, it will no longer be available.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP06C40A	MAIN C.B.A.	1	(RTL) NV-DV10000EC
■	VEP06C40B	MAIN C.B.A.	1	(RTL) NV-DV10000B
				THE FOLLOWING C.B.A.S
				ARE INCLUDED IN
				MAIN C.B.A.
				VEP03E27A
				VEP03E28A
				VEP03E29A
				VEP03E55A
				VEP04669B
				VEP06C89A
				VEP07973B (NV-DV10000EC)
				VEP07973A (NV-DV10000B)
				VEP07801AR (NV-DV10000EC)
				VEP07801AQ (NV-DV10000B)
■	VEP03E27A	ANALOG C.B.A.	1	(RTL)
				INCLUDED IN
				MAIN C.B.A. (VEP06C40A/B).
■	VEP03E28A	INPUT/OUTPUT C.B.A.	1	(RTL)
				INCLUDED IN
				MAIN C.B.A. (VEP06C40A/B),
				INCLUDING THE
				REAR JACK C.B.A.
				(VEP03E29A).
■	VEP03E29A	REAR JACK C.B.A.	1	(RTL)
				INCLUDED IN
				INPUT/OUTPUT C.B.A.
				(VEP03E28A).
■	VEP03E55A	DIGITAL C.B.A.	1	(RTL)
				INCLUDED IN
				MAIN C.B.A. (VEP06C40A/B).
■	VEP04669B	AUDIO C.B.A.	1	(RTL)
				INCLUDED IN
				MAIN C.B.A. (VEP06C40A/B).
■	VEP06C89A	MOTOR DRIVE C.B.A.	1	(RTL)
				INCLUDED IN
				MAIN C.B.A. (VEP06C40A/B).
■	VEP07973B	NICAM DECODER PACK C.B.A.	1	(RTL) NV-DV10000EC
				INCLUDED IN
				MAIN C.B.A. (VEP06C40A).
■	VEP07973A	NICAM DECODER PACK C.B.A.	1	(RTL) NV-DV10000B
				INCLUDED IN
				MAIN C.B.A. (VEP06C40B).
■	VEP07801AR	TV DEMODULATOR PACK C.B.A	1	(RTL) NV-DV10000EC
				INCLUDED IN
				MAIN C.B.A. (VEP06C40A).
■	VEP07801AQ	TV DEMODULATOR PACK C.B.A	1	(RTL) NV-DV10000B
				INCLUDED IN
				MAIN C.B.A. (VEP06C40B).
■	VEP05351A	HEAD AMP C.B.A.	1	(RTL)
■	VEP02557B	MECHANISM DRIVE C.B.A..	1	(RTL)
■	VEP07977A	TIMER C.B.A.	1	(RTL)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP04695B	FRONT (L) C.B.A.	1	(RTL)
■	VEP04696B	FRONT (R) C.B.A.	1	(RTL)
■	VEP07966A	MODULAR C.B.A.	1	(RTL)
■	VEP07965A	FRONT LED C.B.A.	1	(RTL)
■	VEP07968B	IR C.B.A.	1	(RTL)
■	VEP03E18A	5P JACK C.B.A.	1	(RTL)
■	VEP07967A	DV JACK C.B.A.	1	(RTL)
⚠ ■	VEP01814A	POWER SUPPLY C.B.A.	1	(RTL)
■	UR57VPB623	EDITING CONTROL C.B.A.	1	(RTL)
	ENG47288G1	TUNER	1	NV-DV10000EC
	ENG47289G1	TUNER	1	NV-DV10000B
⚠ F1101	XBA2C16TH15	FUSE	1	
■	VEP06C40A	MAIN C.B.A.		(RTL) NV-DV10000EC
■	VEP06C40B	MAIN C.B.A.		(RTL) NV-DV10000B
C1001	ECEA0JKS101	E.CAPACITOR 6.3V 100U	1	
C1002	ECEA1AKS470	E.CAPACITOR 10V 47U	1	
C1003	ECEA0JKS101	E.CAPACITOR 6.3V 100U	1	
C1004	ECEA1AKS470	E.CAPACITOR 10V 47U	1	
C1009	ECEA1AKS221	E.CAPACITOR 10V 220U	1	
C1010	ECEA1HKA010	E.CAPACITOR 50V 1U	1	
C1011, 12	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	2	
C1013	ECUM1H473KBN	C.CAPACITOR CH 50V 0.047U	1	
C1014	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C1016	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C1018	ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C1019	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C1022	ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C1023	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C1024	ECEA1CKS470	E.CAPACITOR 16V 47U	1	
C1025	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C1026	ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C1027	ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C1028	ECA1CM332	E.CAPACITOR 16V 3300U	1	
C1029	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C1030	ECA1CM332	E.CAPACITOR 16V 3300U	1	
C1031	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C1032	ECA1CM332	E.CAPACITOR 16V 3300U	1	
C1033, 34	ECEA1HKS010	E.CAPACITOR 50V 1U	2	
C1035-40	ECEA0JKS101	E.CAPACITOR 6.3V 100U	6	
C1041	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C1042	ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C1043	ECEA0JKS101	E.CAPACITOR 6.3V 100U	1	
C1045	ECEA0JKS101	E.CAPACITOR 6.3V 100U	1	
C1047, 48	ECEA0JKS101	E.CAPACITOR 6.3V 100U	2	
C1049	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C1050, 51	ECEA1CKS101	E.CAPACITOR 16V 100U	2	
C1054, 55	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	2	
C1056	ECEA1CKS470	E.CAPACITOR 16V 47U	1	
C1057	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1058	ECEA1EKS330	E. CAPACITOR 25V 33U	1	
C1059	ECUM1H103KBN	C. CAPACITOR CH 50V 0. 01U	1	
C1060	ECEA0JKS470	E. CAPACITOR 6. 3V 47U	1	
C1061	ECEA1CKS101	E. CAPACITOR 16V 100U	1	
C1062	ECEA1EKS330	E. CAPACITOR 25V 33U	1	
C1063	ECEA0JKS101	E. CAPACITOR 6. 3V 100U	1	
C1064	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C2002-04	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	3	
C2005, 06	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	2	
C2007-09	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	3	
C2010	ECST0JD107Z	T. CAPACITOR CH 6. 3V 100U	1	
C2011-13	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	3	
C2014, 15	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	2	
C2016, 17	ECST1VX335Z	T. CAPACITOR CH 35V 3. 3U	2	
C2018	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C2019	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C2020	ECST0JX226Z	T. CAPACITOR CH 6. 3V 22U	1	
C2021	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C2022	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C2023	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C2024	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C2025	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C2026	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C2027-30	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	4	
C2031-33	ECST1VX335Z	T. CAPACITOR CH 35V 3. 3U	3	
C2201, 02	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C2203	ECEA0JKS330	E. CAPACITOR 6. 3V 33U	1	
C2204	ECEA0JKS470	E. CAPACITOR 6. 3V 47U	1	
C2205	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C2207, 08	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C2209	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1	
C2210	ECUM1H200JCN	C. CAPACITOR CH 50V 20P	1	
C2211, 12	ECUM1H060CCN	C. CAPACITOR CH 50V 6P	2	
C2213	ECUM1H151JCN	C. CAPACITOR CH 50V 150P	1	
C2214	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C2215	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C2216	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C2217	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C2218	ECEA0JKS101	E. CAPACITOR 6. 3V 100U	1	
C2222	ECEA0JKS470	E. CAPACITOR 6. 3V 47U	1	
C2223	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C2225, 26	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C2227	VEY0068	CAPACITOR (N) UNIT	1	
C2228	ECEA1AKS221	E. CAPACITOR 10V 220U	1	
C2229	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C2231	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C2233	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C2234	ECUM1H560JCN	C. CAPACITOR CH 50V 56P	1	
C2235	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C2236-41	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	6	
C2501	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C2502, 03	ECEA1CKA101	E. CAPACITOR 16V 100U	2	
C2505, 06	ECEA1CKA101	E. CAPACITOR 16V 100U	2	
C2507, 08	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C2509	ECEA1CKA101	E. CAPACITOR 16V 100U	1	
C2510	ECUM1H682KBN	C. CAPACITOR CH 50V 6800P	1	
C2511	ECEA1CKA101	E. CAPACITOR 16V 100U	1	
C2512, 13	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C2514	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C2515	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C2519, 20	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C2521	ECEA1CKA101	E. CAPACITOR 16V 100U	1	
C2522	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C2523, 24	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	2	
C2525	ECUM1H682KBN	C. CAPACITOR CH 50V 6800P	1	
C2526	ECEA1CKA101	E. CAPACITOR 16V 100U	1	
C2527	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C2528, 29	ECUM1H682KBN	C. CAPACITOR CH 50V 6800P	2	
C3001	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C3002	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3003	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C3004, 05	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	2	
C3006	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3007, 08	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	2	
C3010-12	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3013	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3014	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C3015	ECST1CY335Z	T. CAPACITOR CH 16V 3. 3U	1	
C3016	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3017	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C3018	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3019	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C3020	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C3021	ECST1CY684Z	T. CAPACITOR CH 16V 0. 68U	1	
C3023	ECUX1H681JCV	C. CAPACITOR CH 50V 680P	1	
C3024	ECUX1H152KBV	C. CAPACITOR CH 50V 1500P	1	
C3025	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
C3026	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
C3027	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C3028-30	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	3	
C3031	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C3032	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C3033	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3034	ECUX1E273KBV	C. CAPACITOR CH 25V 0. 027U	1	
C3035	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3036	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C3037	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C3038, 39	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	2	
C3040, 41	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	2	
C3042	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3043-54	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	12	
C3056-59	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	4	
C3060, 61	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	2	
C3062-65	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	4	
C3067	ECST0JX226Z	T. CAPACITOR CH 6. 3V 22U	1	
C3068-72	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	5	
C3073-77	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	5	
C3078, 79	ECUX1H050CCV	C. CAPACITOR CH 50V 5P	2	
C3080	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3081	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C3082	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C3083	ECUX1C474KBN	C. CAPACITOR CH 16V 0. 47U	1	
C3084	ECUX1C224ZFV	C. CAPACITOR CH 16V 0. 22U	1	
C3085	ECUX1H473ZFV	C. CAPACITOR CH 50V 0. 047U	1	
C3086, 87	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	2	
C3090, 91	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	2	
C3092	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C3093-96	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	4	
C3097, 98	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	2	
C3099, 00	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	2	
C3101	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C3102, 03	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	2	
C3104-07	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	4	
C3108	ECUX1C224ZFV	C. CAPACITOR CH 16V 0. 22U	1	
C3111, 12	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	2	
C3113-15	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	3	
C3116	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C3201, 02	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	2	
C3203, 04	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	2	
C3205	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C3206	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3207	ECUX1H103KBV	C. CAPACITOR CH 50V 0. 01U	1	
C3208	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C3209-11	ECUX1H103KBV	C. CAPACITOR CH 50V 0. 01U	3	
C3212, 13	ECUX1C104KBV	C. CAPACITOR CH 16V 0. 1U	2	
C3214	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C3215	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C3216-18	ECUX1H103KBV	C. CAPACITOR CH 50V 0. 01U	3	
C3219	ECUX1E273KBV	C. CAPACITOR CH 25V 0. 027U	1	
C3220-22	ECUX1H103KBV	C. CAPACITOR CH 50V 0. 01U	3	
C3223	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C3224	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	
C3225-27	ECUX1H103KBV	C. CAPACITOR CH 50V 0. 01U	3	
C3228	ECUX1C104KBV	C. CAPACITOR CH 16V 0. 1U	1	
C3229	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C3230	ECUX1H103KBV	C. CAPACITOR CH 50V 0. 01U	1	
C3231	ECUX1H152KBV	C. CAPACITOR CH 50V 1500P	1	
C3232	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C3233-38	ECUX1H103KBV	C. CAPACITOR CH 50V 0. 01U	6	
C3239	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C3240	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3241,42	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C3243	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3244	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3245	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C3246	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3247	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C3248,49	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	
C3250	ECUM0J225KBN	C.CAPACITOR CH 6.3V 2.2U	1	
C3251-53	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	
C3254	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3255,56	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	
C3257	ECST0JX476Z	T.CAPACITOR CH 6.3V 47U	1	
C3258	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3259	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3260	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3261	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3262	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C3267	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3280	ECST0JD107Z	T.CAPACITOR CH 6.3V 100U	1	
C3281	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3282	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C3301	ECUX0J104KBQ	C.CAPACITOR CH 6.3V 0.1U	1	
C3302	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3303,04	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	2	
C3305	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3306-10	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	5	
C3311	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3312	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C3313-16	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	4	
C3317	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C3318	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3319	ECUX1H470JCQ	C.CAPACITOR CH 50V 47P	1	
C3320	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C3321	ECUX1H470JCQ	C.CAPACITOR CH 50V 47P	1	
C3322-27	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	6	
C3328	ECUX0J104KBQ	C.CAPACITOR CH 6.3V 0.1U	1	
C3329,30	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	2	
C3331	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3332,33	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	2	
C3335	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C3337	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C3338	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3339	ECUX0J104KBQ	C.CAPACITOR CH 6.3V 0.1U	1	
C3340	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3341,42	ECUX0J104KBQ	C.CAPACITOR CH 6.3V 0.1U	2	
C3343-50	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	8	
C3351	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	1	
C3352,53	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	2	
C3354-56	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	3	
C3357	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3360,61	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	2	
C3362	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3363-65	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	3	
C3367-70	ECUX0J104KBQ	C.CAPACITOR CH 6.3V 0.1U	4	
C3371,72	ECUX1H101JCQ	C.CAPACITOR CH 50V 100P	2	
C3374-78	ECUX0J104KBQ	C.CAPACITOR CH 6.3V 0.1U	5	
C3379	ECUX1E102KBQ	C.CAPACITOR CH 25V 1000P	1	
C3380	ECST0JX476Z	T.CAPACITOR CH 6.3V 47U	1	
C3601	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3602	ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C3603	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3604	ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C3605	ECA0JM221	E.CAPACITOR 6.3V 220U	1	
C3606	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3607	ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C3608	ECA0JM331	E.CAPACITOR 6.3V 330U	1	
C3609	ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C3610	ECA0JM331	E.CAPACITOR 6.3V 330U	1	
C3611	ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C3612	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3613-15	ECEA1HKS010	E.CAPACITOR 50V 1U	3	
C3616	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3617	ECEA0JKS101	E.CAPACITOR 6.3V 100U	1	
C3618,19	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C3620	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3621	ECQP1392JZ	P.CAPACITOR 100V 3900P	1	
C3622	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C3623	ECEA0JKS330	E.CAPACITOR 6.3V 33U	1	
C3624	ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C3625	ECEA1HKGR68	E.CAPACITOR 50V 0.68U	1	
C3626	ECUX1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3627	ECEA1AKS221	E.CAPACITOR 10V 220U	1	
C3628	ECEA1EKS4R7	E.CAPACITOR 25V 4.7U	1	
C3629	ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C3630	ECUM1C334KBM	C.CAPACITOR CH 16V 0.33U	1	
C3631	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3632	ECQV1H683JL	P.CAPACITOR 50V 0.068U	1	
C3633	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C3701,02	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C3703	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C3704-06	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C3707	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C3710-12	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	3	
C3713	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3714	ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3715-18	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C3719-21	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	3	
C3722-25	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C3726	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3901	ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C3902	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3903	ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C3904	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3905	ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C3906	ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C3907	ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C3908	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3909	ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C4001	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4002	ECEA1EKS4R7	E.CAPACITOR 25V 4.7U	1	
C4003	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4004	ECEA1CKS101	E.CAPACITOR 16V 100U	1	
C4005	VCEA1CAW220	E.CAPACITOR 16V 22U	1	
C4006	ECUX1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4007	VCEA1CAW220	E.CAPACITOR 16V 22U	1	
C4008	ECHR1H223JZ	P.CAPACITOR 50V 0.022U	1	
C4009,10	VCEA1CAS102	E.CAPACITOR 16V 1000U	2	NV-DV10000EC
C4011	ECHR1H223JZ	P.CAPACITOR 50V 0.022U	1	
C4012	VCEA1CAW220	E.CAPACITOR 16V 22U	1	
C4203	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C4206	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C4207	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C4211	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C4212	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C4213	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4214	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C4215	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C4217	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C4218	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4219	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C4220,21	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C4222,23	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C4224,25	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	2	
C4302	VCEA1AAE101	E.CAPACITOR 10V 100U	1	
C4303	ECHR1H103JZ	C.CAPACITOR 50V 0.01U	1	
C4304	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4305	VCEA0JAE221	E.CAPASITOR 6.3V 220U	1	
C4306	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4307	VCEA0JAE221	E.CAPASITOR 6.3V 220U	1	
C4308	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4309	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C4310	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4311	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4312	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C4313	ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C4314	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C4315	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4316	VCEA1CAE100	E.CAPACITOR 16V 10U	1	
C4317	ECEA1CKA100	E.CAPACITOR 16V 10U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4318	ECUM1E683KBN	C. CAPACITOR CH 25V 0. 068U	1	
C4319	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4320	VCEA0JAE470	E. CAPACITOR 6. 3V 47U	1	
C4321	ECHR1H103JZ	C. CAPACITOR 50V 0. 01U	1	
C4322	ECUM1E683KBN	C. CAPACITOR CH 25V 0. 068U	1	
C4323	VCEA1CAE100	E. CAPACITOR 16V 10U	1	
C4324	ECUM1E683KBN	C. CAPACITOR CH 25V 0. 068U	1	
C4325, 26	VCEA1HAE2R2	E. CAPACITOR 50V 2. 2U	2	
C4327	VCEA0JAE470	E. CAPACITOR 6. 3V 47U	1	
C4328	ECHR1H103JZ	C. CAPACITOR 50V 0. 01U	1	
C4329, 30	VCEA1HAE2R2	E. CAPACITOR 50V 2. 2U	2	
C4331	ECUM1E683KBN	C. CAPACITOR CH 25V 0. 068U	1	
C4332, 33	VCEA1CAE100	E. CAPACITOR 16V 10U	2	
C4334	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4335, 36	VCEA1HAE2R2	E. CAPACITOR 50V 2. 2U	2	
C4337	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C4338	ECEA0JKA101	E. CAPACITOR 6. 3V 100U	1	
C4339	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4340, 41	VCEA1HAE2R2	E. CAPACITOR 50V 2. 2U	2	
C4342-44	VCEA1CAE100	E. CAPACITOR 16V 10U	3	
C4345, 46	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C4347, 48	ECEA1CKA100	E. CAPACITOR 16V 10U	2	
C4349	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4350	VCEA1CAE100	E. CAPACITOR 16V 10U	1	
C4351	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4352	ECEA1CKA101	E. CAPACITOR 16V 100U	1	
C4353	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C4354	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
C4355	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4356	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C4357	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4358	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C4359	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4360	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C4361, 62	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C4363	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C4364	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4365, 66	ECEA1CKA100	E. CAPACITOR 16V 10U	2	
C4367	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C4368	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4371	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1	
C4372	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4373, 74	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	2	
C4377	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C4378	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C4379-81	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	3	
C4382	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C4384, 85	ECUX1C393KBV	C. CAPACITOR CH 16V 0. 039U	2	
C4501, 02	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	2	
C4503-05	ECST0JY106Z	T. CAPACITOR CH 6. 3V 10U	3	
C4506	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C4515	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C4701	ECEA1CKS100	E. CAPACITOR 16V 10U	1	
C4702, 03	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	2	
C4704, 05	ECEA1CKS100	E. CAPACITOR 16V 10U	2	
C4706	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C4707	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4708-11	VCEA1CAW100	E. CAPACITOR 16V 10U	4	
C4901-04	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	4	
C4905	ECEA1AKA470	E. CAPACITOR 10V 47U	1	
C4906	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4907-14	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	8	
C6001	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C6002	ECST0JD107Z	T. CAPACITOR CH 6. 3V 100U	1	
C6003	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6004	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C6005	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6006, 07	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	2	
C6008	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6009, 10	ECUX1H103KBV	C. CAPACITOR CH 50V 0. 01U	2	
C6011, 12	ECUX1E223KBV	C. CAPACITOR CH 25V 0. 022U	2	
C6015	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C6017, 18	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	2	
C6019	ECST0JD107Z	T. CAPACITOR CH 6. 3V 100U	1	
C6020	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C6021	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C6022-25	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	4	
C6026	ECST0JD107Z	T. CAPACITOR CH 6. 3V 100U	1	
C6027	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6028-30	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	3	
C6033, 34	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	2	
C6035	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6036	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C6041	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C6043	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C6044	ECST0JX226Z	T. CAPACITOR CH 6. 3V 22U	1	
C6045, 46	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	2	
C7601	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C7602	ECEA0JKA101	E. CAPACITOR 6. 3V 100U	1	
C7604	ECEA0JKA101	E. CAPACITOR 6. 3V 100U	1	
C7607	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C7608	ECEA1HKA100	E. CAPACITOR 50V 10U	1	
C7610	ECEA0JKA101	E. CAPACITOR 6. 3V 100U	1	
C7614	ECEA1HKA010	E. CAPACITOR 50V 1U	1	
C7615, 16	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	2	
C7617	ECEA1AKA470	E. CAPACITOR 10V 47U	1	
C7651	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C7909	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C7910	ECEA0JKS470	E. CAPACITOR 6. 3V 47U	1	
C7911	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C30001, 02	ECUM1C104ZFN	C. CAPACITOR CH 16V 0. 1U	2	
C30003	ECUM1H103KBN	C. CAPACITOR CH 50V 0. 01U	1	
C30004, 05	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	2	
C30006	ECQB1H153JF	P. CAPACITOR 50V 0. 015U	1	
C30007	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	1	
C30008	ECUM1H332KBN	C. CAPACITOR CH 50V 3300P	1	
C30009	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C30010	EEVHB0J101	E. CAPACITOR 6. 3V 100U	1	
C30011	EEVHB1H3R3	E. CAPACITOR 50V 3. 3U	1	
C30012, 13	EEVHB1C100	E. CAPACITOR 16V 10U	2	
C30014	EEVHB1H4R7	E. CAPACITOR 50V 4. 7U	1	
C30015	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C30016	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	1	
C30018	EEVHB1C100	E. CAPACITOR 16V 10U	1	
C30019	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C30020	EEVHB0J101	E. CAPACITOR 6. 3V 100U	1	
C30021	EEVHB0J470	E. CAPACITOR 6. 3V 47U	1	
C30022, 23	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C30024	EEVHB0J470	E. CAPACITOR 6. 3V 47U	1	
C30025	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C30026	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
C30027	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C30028	EEVHB0J220	E. CAPACITOR 6. 3V 22U	1	
C30029, 30	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	2	
C30031, 32	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	2	
C30033	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C30034	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
C30035	EEVHB0J220	E. CAPACITOR 6. 3V 22U	1	
C30036	EEVHB0J101	E. CAPACITOR 6. 3V 100U	1	
C30037	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C30038-40	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	3	
C30041	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C30042	ECUX1H181JCV	C. CAPACITOR CH 50V 180P	1	
C30043	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C30044	ECUM1H121JCN	C. CAPACITOR CH 50V 120P	1	
C30045, 46	EEVHB1C100	E. CAPACITOR 16V 10U	2	
C30047, 48	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	2	
C30049	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	1	
C30050	EEVHP1HR47	E. CAPACITOR 50V 0. 47U	1	
C30051	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C30052	EEVHB1C100	E. CAPACITOR 16V 10U	1	
C30053, 54	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	2	
C30055	EEVHB0J220	E. CAPACITOR 6. 3V 22U	1	
C30056	EEVHB1C100	E. CAPACITOR 16V 10U	1	
C30057	ECUX1H561JCV	C. CAPACITOR CH 50V 560P	1	
C30058	ECUX1H391JCV	C. CAPACITOR CH 50V 390P	1	
C30059	EEVHB0J470	E. CAPACITOR 6. 3V 47U	1	
C30060	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C30061	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C30063	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C30064	EEVHB1H4R7	E.CAPACITOR 50V 4.7U	1	
C30065	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	1	
C30066	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C30067	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C30068	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C30069	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C30070	ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C30071	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C30072	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C30073	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C30075	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C30076	EEVHB1H1R0	E.CAPACITOR 50V 1U	1	
C30077	ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C30078	ECUX1H561JCN	C.CAPACITOR CH 50V 560P	1	
C30079	EEVHB1H3R3	E.CAPACITOR 50V 3.3U	1	
C30080	ECUX1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C30081	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C30083	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C30084	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C30085	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C30086	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C30087	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C30088	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C30089,90	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C30091	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	1	
C30092	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C30093,94	ECUM1H080CCN	C.CAPACITOR CH 50V 8P	2	
C30095-98	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C30099	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C30100	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C30101	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C30102	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C30103	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C30104	ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C30105	ECUM1H200JCN	C.CAPACITOR CH 50V 20P	1	
C30106	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C30107	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C30108	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C30109	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C30110	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C30111	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C30113	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C30114	EEVHP1H1R0	E.CAPACITOR 50V 1U	1	
C30116	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C30117-19	EEVHB1E4R7	E.CAPACITOR 25V 4.7U	3	
C30120	ECUM1H121JCN	C.CAPACITOR CH 50V 120P	1	
C30122	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C30123	EEVHB0J220	E.CAPACITOR 6.3V 22U	1	
C30124	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C30125	ECUM1H271JCN	C.CAPACITOR CH 50V 270P	1	
C30126	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C30127	ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C30128	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C30130	EEVHB1H1R0	E.CAPACITOR 50V 1U	1	
C30131	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C30132	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C30133	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C30134	EEVHB0J220	E.CAPACITOR 6.3V 22U	1	
C30135	ECUM1H331JCN	C.CAPACITOR CH 50V 330P	1	
C30136	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C30137	EEVHB1H1R0	E.CAPACITOR 50V 1U	1	
C30138	EEVHP1H1R0	E.CAPACITOR 50V 1U	1	
C30139,40	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C30141	ECUM1C104ZFN	C.CAPACITOR CH 16V 0.1U	1	
C30142	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C30143	ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C30145	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C30146	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C30147,48	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C30149	EEVHP1A100	E.CAPACITOR 10V 10U	1	
C30150	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C30151	EEVHP1A100	E.CAPACITOR 10V 10U	1	
C30152	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C30155	ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C30156	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C30157	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C30159	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C30160	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C30161-63	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C30165	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C30167-70	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	4	
C30171-74	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C30175	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C30176-80	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	5	
C30181	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C30182	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C30183	ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C30184	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C30186	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C30187	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C30188	ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
D1001	MA165VT	DIODE	1	
D1002	MA4051-L	DIODE	1	
D1003	MA165VT	DIODE	1	
D1004	MA4051-L	DIODE	1	
D1005	MA165VT	DIODE	1	
D1008,09	MA165VT	DIODE	2	
D1010	11ES1	DIODE	1	
D1011	21DQ04	DIODE	1	
D1013	MA4120-M	DIODE	1	
D1014	MA165VT	DIODE	1	
D1017	MA4062-L	DIODE	1	
D1020	MA4082	DIODE	1	
D1021	MA4200M	DIODE	1	
D1022	MA4051-M	DIODE	1	
D1023,24	MA165VT	DIODE	2	
D1025	MA723	DIODE	1	
D1026	MA165VT	DIODE	1	
D2001	MA728	DIODE	1	
D2003-05	1SS355	DIODE	3	
D2006-14	MA728	DIODE	9	
D2201,02	MA165VT	DIODE	2	
D2203-05	MA723	DIODE	3	
D2206	MA720	DIODE	1	
D2207	MA723	DIODE	1	
D2208	MA165VT	DIODE	1	
D2209	MA720	DIODE	1	
D2210	MA165VT	DIODE	1	
D2211	MA720	DIODE	1	
D2501	AK04	DIODE	1	
D2503	AK04	DIODE	1	
D2505	AK04	DIODE	1	
D2507	AK04	DIODE	1	
D3002	MA728	DIODE	1	
D3003	MA151K	DIODE	1	
D3201	MA142WA	DIODE	1	
D3601	MA721WK	DIODE	1	
D3602	MA721WA	DIODE	1	
D3603	MA720	DIODE	1	
D3604	MA151WA	DIODE	1	
D3901-03	MA165VT	DIODE	3	
D3904,05	MA4056-M	DIODE	2	
D3906	MA165VT	DIODE	1	
D4002,03	MA165VT	DIODE	2	
D4301	MA151K	DIODE	1	
D4302	MA153	DIODE	1	
D4501	MA721	DIODE	1	
D4701	MA720	DIODE	1	
D4702	MA151WK	DIODE	1	
D6002-05	1SS355	DIODE	4	
D6007,08	1SS355	DIODE	2	
D7601	MA4300-M	DIODE	1	
D7602,03	MA165VT	DIODE	2	
D7651	MA4051-L	DIODE	1	
D7652	MA165VT	DIODE	1	
D30001	MA151K	DIODE	1	
D30002	MA8027-H	DIODE	1	
D30003	MA28W-A	DIODE	1	
D30004	MA142K	DIODE	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
D30005	MA151K	DIODE	1	
D30006	MA8033-L	DIODE	1	
D30007	MA142K	DIODE	1	
D30008	MA151K	DIODE	1	
D30009	MA721	DIODE	1	
FL7601	ELB4H020	FILTER	1	NV-DV10000EC
FL30001	ELB4Y029B	DELAY LINE	1	
FL30002	VLF1367	FILTER	1	
FP3201	VJS3251	CONNECTOR (FEMALE)	1	
IC1001	UPC1093J	IC	1	
IC1003	NJM4565MD	IC	1	
IC1004	NJM2904M	IC	1	
IC1005	RN5RG22AA	IC	1	
IC1006, 07	NJM4565MD	IC	2	
IC1008	RN5RZ50BA	IC	1	
IC1009	PQ20VB2E	IC	1	
IC2001	M31020PVDCA	IC	1	
IC2002	UPD4721GS	IC	1	
IC2004	S29L331AFS	IC	1	
IC2005	D784037GK508	IC	1	
IC2006	MM1320ENRE	IC	1	
IC2201	S80743AL	IC	1	
IC2202	BU4052BCF	IC	1	
IC2203	M37777VACX	IC	1	
IC2204	M6M80041P	IC	1	
IC2205	M38027PVDEA	IC	1	
IC2206	TCHC4538AF	IC	1	
IC2207, 08	M66010GP	IC	2	
IC2209	S80743AL	IC	1	
IC2210	PST7028	IC	1	
IC2211-13	TC7W74F	IC	3	
IC2214	TC7W08F	IC	1	
IC2215	TC7SH32F	IC	1	
IC2216	TC7S08F	IC	1	
IC2502	TL1453CNS	IC	1	
IC3001	T9P90EF	IC	1	
IC3002	MN47V07AF	IC	1	
IC3003	MN67373	IC	1	
IC3004	M52387FP	IC	1	
IC3005	BH7086KV	IC	1	
IC3006	M52684AFP	IC	1	
IC3007	TC7SH00FU	IC	1	
IC3008	T200G52F0001	IC	1	
IC3009	TC7SH08FU	IC	1	
IC3010	RN5RZ30BA	IC	1	
IC3201	M65500FP	IC	1	
IC3202	UPD42S4260B8	IC	1	
IC3203	AN3741FAP	IC	1	
IC3204	AD9057BRS-60	IC	1	
IC3205	TC7SH08FU	IC	1	
IC3207	M62370GP	IC	1	
IC3601	UPD4053BG	IC	1	
IC3602	AN3581S	IC	1	
IC3603	AN3296S	IC	1	
IC3701	TSB13LV11PBW	IC	1	
IC3901	MC14053BF	IC	1	
IC3902	MC14052BF	IC	1	
IC3903	MC14051BF	IC	1	
IC3904	PQ20VB2E	IC	1	
IC4001, 02	UPD4051BG	IC	2	
IC4003	BU4053BCF	IC	1	
IC4004	NJM4558M	IC	1	
IC4201	NJM2112V	IC	1	
IC4210	NJM2115V	IC	1	
IC4301	NJM79L05A	IC	1	
IC4302	NJM4558M	IC	1	
IC4303	UPC78L05J	IC	1	
IC4304, 05	NJM4558M	IC	2	
IC4306	M62409FP	IC	1	
IC4307	NJM4558M	IC	1	
IC4308	M62409FP	IC	1	
IC4309	BU4052BCF	IC	1	
IC4310, 11	NJM4558M	IC	2	
IC4312	NJM4565DD	IC	1	
IC4313, 14	BU4052BCF	IC	2	
IC4315	NJM4558M	IC	1	
IC4316	HA17431PA	IC	1	
IC4501	AK4520A-VF	IC	1	
IC4701	D78011FGC564	IC	1	
IC4702	PST591D	IC	1	
IC4901	MC14052BF	IC	1	
IC6001	M31020PVDDA	IC	1	
IC6002	RN5VD29EA	IC	1	
IC6003	MC14013BFR	IC	1	
IC6004	TC7W74FU	IC	1	
IC6005	TC7S86FU	IC	1	
IC6006	TC75W54FU	IC	1	
IC7905	PST7043	IC	1	
IC7906	M34510W2CR	IC	1	
IC30001	MC14053BF	IC	1	
IC30002	NJM2903M	IC	1	
IC30003	TCHC4538AF	IC	1	
IC30004	AN3916	IC	1	
IC30005	TCHC4538AF	IC	1	
IC30006	NJM2255D	IC	1	
IC30007	MC14053BF	IC	1	
IC30008	TC9090AF	IC	1	
IC30009	MM1093PFB	IC	1	
IC30010	MB90089WVAS	IC	1	
IC30011	MM1108XFF	IC	1	
IC30012	ST24W16FB6	IC	1	
IC30013	SABC161RIL16	IC	1	
IC30014	S80743AL	IC	1	
IC30015	M27C2001FBBA	IC	1	
IC30016	SDA5273-2CS	IC	1	
IC30017	M52390FP	IC	1	
IC30018	NJM2513M	IC	1	
IC30019	MC14053BF	IC	1	
⚠ IP1001-09	VSF0015A06	IC PROTECTOR	9	
⚠ IP1011	VSF0015A025	IC PROTECTOR	1	
⚠ IP7601	VSF0015A025	IC PROTECTOR	1	
JK0602	VJJ0242	REMOTE CONTROLLER JACK	1	
JK0603	VJJ0577	JACK	1	
JK3901, 02	VJS1470	CONNECTOR (FEMALE) 21P	2	
K2001	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K2503, 04	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
K3903	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
K7904	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
K7909-11	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	3	
K30001-03	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	3	
K30006	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K30009, 10	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
L1001	ELEKN390KA	INDUCTOR 39UH	1	
L2001, 02	ELJPA100KB	COIL 10UH	2	
L2501-04	VLQ0614K331	COIL 330UH	4	
L3001-04	ELJPA100KB	COIL 10UH	4	
L3006-08	ELJPA100KB	COIL 10UH	3	
L3009	VLQ0426J120	COIL 12UH	1	
L3201-07	ELJPA100KB	COIL 10UH	7	
L3208	ELJPA220KB	COIL 22UH	1	
L3209, 10	ELJPA100KB	COIL 10UH	2	
L3601	VLQ0599J680	COIL 68UH	1	
L3602	VLQ0599J330	COIL 33UH	1	
L3603	VLQ0599J680	COIL 68UH	1	
L3604	VLQ0599J330	COIL 33UH	1	
L3901, 02	VLQ0599J680	COIL 68UH	2	
L4201	VLQ0426J6R8	COIL 6.8UH	1	
L4501, 02	ELJPA100KB	COIL 10UH	2	
L4701, 02	VLQ0599J100	COIL 10UH	2	
L7601	VLQ0599J330	COIL 33UH	1	
L7602	VLQ0599J2R7	COIL 2.7UH	1	
L7603	VLQ0599J330	COIL 33UH	1	NV-DV10000B
L7605	VLQEL05S330K	COIL 33UH	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L7606	VLQEL05T680	COIL 68UH	1	
L7611	VLQ0599J100	COIL 10UH	1	
L30001-03	ELJPA330KB	COIL 33UH	3	
L30004	VLQ0163J560	COIL 56UH	1	
L30005	VLQ0163J220	COIL 22UH	1	
L30006-09	VLQ0163J330	COIL 33UH	4	
L30010-14	ELJPA330KB	COIL 33UH	5	
L30015	VLQ0163J220	COIL 22UH	1	
L30017	VLQ0163J220	COIL 22UH	1	
L30018-20	ELJPA330KB	COIL 33UH	3	
L30021	ELJPA150KB	COIL 15UH	1	
L30022, 23	ELJPA330KB	COIL 33UH	2	
L30024	VLQ0163J100	COIL 10UH	1	
L30025	ELJPA330KB	COIL 33UH	1	
L30026	VLQ0163J100	COIL 10UH	1	
L30027	VLQ0163J5R6	COIL 5. 6UH	1	
L30028, 29	VLQ0163J330	COIL 33UH	2	
L30030	ELJPA150KB	COIL 15UH	1	
LB0601-03	VLP0145	COIL	3	
LB2002-04	VLP0364	CHIP INDUCTOR	3	
LB2201	VLP0085	COIL	1	
LB2202	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
LB2203-06	VLP0085	COIL	4	
LB2501, 02	VLP0083	COIL	2	
LB3001-04	VLP0364	CHIP INDUCTOR	4	
LB3006	VLP0364	CHIP INDUCTOR	1	
LB3701-04	VLP0364	CHIP INDUCTOR	4	
LB6004	VLP0364	CHIP INDUCTOR	1	
LB30001, 02	VLP0145	COIL	2	
LB30003-05	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	3	
LB30006, 07	VLP0196	CHIP INDUCTOR	2	
LB30008-23	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	16	
LB30024	VLP0147	COIL	1	
LB30025-28	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	4	
LB30029-36	VLP0147	COIL	8	
P2502	VJP1931T	CONNECTOR (MALE)	1	
P3701	VJP3125B006	CONNECTOR (MALE) 6P	1	
P3701	VJP1229T	CONNECTOR (MALE) 2P	1	FOR FRONT SW
P3901	VJP1242T	CONNECTOR (MALE) 2P	1	
P4001	VJS3537A020G	CONNECTOR (FEMALE) 20P	1	
P4010	VCEA1CAS102	E. CAPACITOR 16V 1000U	1	NV-DV10000B
P6201	VJP1231T	CONNECTOR (MALE) 4P	1	
P6401	VJS3537A022G	CONNECTOR (FEMALE) 22P	1	
P6701	VJS3537A032G	CONNECTOR (FEMALE) 32P	1	
P6703	VJS3537A026G	CONNECTOR (FEMALE) 26P	1	
P6707	VJP1239T	CONNECTOR (MALE) 12P	1	
P7901	VJS3537A019G	CONNECTOR (FEMALE) 19P	1	
P7902	VJS3537A017G	CONNECTOR (FEMALE) 17P	1	
PP3401	VJP3573E012	CONNECTOR (MALE) 12P	1	
PP3402, 03	VJP3573E020	CONNECTOR (MALE) 20P	2	
PP3404	VJP3573E008	CONNECTOR (MALE) 8P	1	
PP3501, 02	VJP3573E020	CONNECTOR (MALE) 20P	2	
PP3503	VJP3573E012	CONNECTOR (MALE) 12P	1	
PP3610	VJP3994	CONNECTOR (MALE) 130P	1	
PP3901	VJP3042G009W	CONNECTOR (MALE) 9P	1	
PP4002, 03	VJP3186A018W	CONNECTOR (MAIL) 18P	2	
PP6706	VJP3042A020W	CONNECTOR (MAIL) 20P	1	
PS0601	VJS3042B009W	CONNECTOR (FEMALE) 9P	1	
PS2501	VJS3042B020W	CONNECTOR (FEMALE) 20P	1	
PS3001	VJS3994	CONNECTOR (FEMALE)	1	
PS3002	VJP3884B060	CONNECTOR (MALE) 60P	1	
PS3901	VJS3573F012	CONNECTOR (FEMALE) 12P	1	
PS3902, 03	VJS3573F020	CONNECTOR (FEMALE) 20P	2	
PS3904	VJS3573F008	CONNECTOR (FEMALE) 8P	1	
PS4301, 02	VJS3186B018	CONNECTOR (FEMALE) 18P	2	
PS30001, 02	VJS3573F020	CONNECTOR (FEMALE) 20P	2	
PS30003	VJS3573F012	CONNECTOR (FEMALE) 12P	1	
Q1001-05	2SD1996	TRANSISTOR	5	
Q1008	2SB956	TRANSISTOR	1	
Q1009	2SB948A	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q1010-12	2SD1996	TRANSISTOR	3	
Q1017	2SD25440PQA	TRANSISTOR	1	
Q1018	2SD1996	TRANSISTOR	1	
Q1020	2SD601A	TRANSISTOR	1	
Q1023	2SD602A-R	TRANSISTOR	1	
Q1024	2SB710	TRANSISTOR	1	
Q1025-27	2SB956	TRANSISTOR	3	
Q1028, 29	2SD1996	TRANSISTOR	2	
Q1030	2SD601A	TRANSISTOR	1	
Q2201-07	2SD601A	TRANSISTOR	7	
Q2501	2SB1073	TRANSISTOR	1	
Q2506, 07	2SB1073	TRANSISTOR	2	
Q2509	2SB1073	TRANSISTOR	1	
Q3001	2SD1819	TRANSISTOR	1	
Q3002	2SB1218	TRANSISTOR	1	
Q3003	2SD1819A	TRANSISTOR	1	
Q3004, 05	2SD1819	TRANSISTOR	2	
Q3006	2SC3930	TRANSISTOR	1	
Q3201	2SB1218A-R	TRANSISTOR	1	
Q3601	2SD601A	TRANSISTOR	1	
Q3901	2SD1328-R	TRANSISTOR	1	
Q3902	2SB709A	TRANSISTOR	1	
Q3903, 04	2SD601A	TRANSISTOR	2	
Q3905	2SB709A	TRANSISTOR	1	
Q3907-09	2SD601A	TRANSISTOR	3	
Q4001	2SK170BL	TRANSISTOR	1	
Q4002	2SB709	TRANSISTOR	1	
Q4003	2SD1992	TRANSISTOR	1	
Q4004	2SD601A	TRANSISTOR	1	
Q4005	2SB1320A	TRANSISTOR	1	
Q4301	2SD1468	TRANSISTOR	1	
Q4302	MSB709-R	TRANSISTOR	1	
Q4303-10	2SD601A	TRANSISTOR	8	
Q4311, 12	XN4501	TRANSISTOR	2	
Q4313-15	2SD601A	TRANSISTOR	3	
Q4701, 02	2SD601A	TRANSISTOR	2	
Q6001	2SB970X	TRANSISTOR	1	
Q7601	2SD601A	TRANSISTOR	1	
Q7602	2SD1328-S	TRANSISTOR	1	
Q7604, 05	2SD1328-S	TRANSISTOR	2	
Q7606	2SB709A	TRANSISTOR	1	
Q30001	MSD601-R	TRANSISTOR	1	
Q30002	MSB709-R	TRANSISTOR	1	
Q30003, 04	2SB1218	TRANSISTOR	2	
Q30005, 06	2SC3930	TRANSISTOR	2	
Q30007, 08	MSB709-R	TRANSISTOR	2	
Q30009	2SC3930	TRANSISTOR	1	
Q30010	MSC2295-B	TRANSISTOR	1	
Q30011	2SB1218	TRANSISTOR	1	
Q30012	MSC2295-B	TRANSISTOR	1	
Q30013, 14	2SB1218	TRANSISTOR	2	
Q30015	2SD1819	TRANSISTOR	1	
Q30016	MSB709-R	TRANSISTOR	1	
Q30017	2SD1819	TRANSISTOR	1	
Q30018	MSB709-R	TRANSISTOR	1	
Q30019	2SD1819	TRANSISTOR	1	
Q30020	2SB1218	TRANSISTOR	1	
Q30021, 22	2SD1819	TRANSISTOR	2	
Q30023	2SB1218	TRANSISTOR	1	
Q30024-27	2SD1819	TRANSISTOR	4	
Q30028	MSB709-R	TRANSISTOR	1	
Q30030	MSD601-R	TRANSISTOR	1	
Q30031, 32	2SB1218	TRANSISTOR	2	
Q30033	2SD1819	TRANSISTOR	1	
Q30034, 35	2SB1218	TRANSISTOR	2	
Q30036	2SD1819	TRANSISTOR	1	
Q30037	MSB709-R	TRANSISTOR	1	
Q30038	2SD1819	TRANSISTOR	1	
Q30039	2SB1218	TRANSISTOR	1	
Q30040	2SD1819	TRANSISTOR	1	
Q30041	MSD601-R	TRANSISTOR	1	
Q30042	2SD1819	TRANSISTOR	1	
Q30043	2SB1218	TRANSISTOR	1	
Q30044	MSD601-R	TRANSISTOR	1	
Q30045	2SB1218	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q30046	MSD601-R	TRANSISTOR	1	
Q30047	MSB709-R	TRANSISTOR	1	
Q30048	2SD1819	TRANSISTOR	1	
QR1001	MUN2213	TRANSISTOR-RESISTOR	1	
QR1003	UN221F	TRANSISTOR-RESISTOR	1	
QR1005	MUN2113	TRANSISTOR-RESISTOR	1	
QR1008	MUN2211	TRANSISTOR-RESISTOR	1	
QR1009	MUN2213	TRANSISTOR-RESISTOR	1	
QR1011	MUN2213	TRANSISTOR-RESISTOR	1	
QR1012	UN211D	TRANSISTOR-RESISTOR	1	
QR2001	UN5113	TRANSISTOR-RESISTOR	1	
QR2002, 03	UN5213	TRANSISTOR-RESISTOR	2	
QR2201-06	MUN2213	TRANSISTOR-RESISTOR	6	
QR2207, 08	MUN2212	TRANSISTOR-RESISTOR	2	
QR2209-11	MUN2211	TRANSISTOR-RESISTOR	3	
QR2212	MUN2213	TRANSISTOR-RESISTOR	1	
QR2213	MUN2211	TRANSISTOR-RESISTOR	1	
QR2214	MUN2213	TRANSISTOR-RESISTOR	1	
QR2215	MUN2211	TRANSISTOR-RESISTOR	1	
QR2216-18	MUN2213	TRANSISTOR-RESISTOR	3	
QR2219	MUN2211	TRANSISTOR-RESISTOR	1	
QR2220-22	MUN2213	TRANSISTOR-RESISTOR	3	
QR2503	UN2215	TRANSISTOR-RESISTOR	1	
QR2508	UN2115	TRANSISTOR-RESISTOR	1	
QR3601-03	MUN2213	TRANSISTOR-RESISTOR	3	
QR3604, 05	UN221L	TRANSISTOR	2	
QR3901	MUN2211	TRANSISTOR-RESISTOR	1	
QR3902	MUN2111	TRANSISTOR-RESISTOR	1	
QR3903	MUN2211	TRANSISTOR-RESISTOR	1	
QR3904	MUN2213	TRANSISTOR-RESISTOR	1	
QR4301	UN2119	TRANSISTOR-RESISTOR	1	
QR4302	MUN2212	TRANSISTOR-RESISTOR	1	
QR4303	MUN2213	TRANSISTOR-RESISTOR	1	
QR4701-03	MUN2213	TRANSISTOR-RESISTOR	3	
QR4704	MUN2211	TRANSISTOR-RESISTOR	1	
QR4706	MUN2112	TRANSISTOR-RESISTOR	1	
QR6001	UN5213	TRANSISTOR-RESISTOR	1	
QR7601	MUN2213	TRANSISTOR-RESISTOR	1	
QR7651	UN221F	TRANSISTOR-RESISTOR	1	
QR30003	UN221L	TRANSISTOR	1	
QR30004	UN5116	TRANSISTOR-RESISTOR	1	
QR30005	MUN2213	TRANSISTOR-RESISTOR	1	
R1001	ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R1002	ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R1004	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R1005, 06	ERJ6GEYG683	M.RESISTOR CH 1/10W 68K	2	
R1007	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R1008	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R1009	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R1012	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R1013, 14	ERDS2TJ821	C.RESISTOR 1/4W 820	2	
R1015	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R1016	ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R1018	ERDS2TJ821	C.RESISTOR 1/4W 820	1	
R1019	ERDS2TJ272	C.RESISTOR 1/4W 2.7K	1	
R1021	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R1022	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R1023	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R1025	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R1026	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	1	
R1027	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R1028	ERJ6GEYF822	M.RESISTOR CH 1/10W 8.2K	1	
R1029	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R1030	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	1	
R1031	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R1032, 33	ERJ6GEYG563	M.RESISTOR CH 1/10W 56K	2	
R1034	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	1	
R1036	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	1	
R1039	ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1040	ERDS2TJ821	C.RESISTOR 1/4W 820	1	
R1041	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R1042	ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1043	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1044-46	ERDS2TJ472	C.RESISTOR 1/4W 4.7K	3	
R1049	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R1050, 51	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	2	
R2001	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2002, 03	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R2006-21	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	16	
R2022-27	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	6	
R2028	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2029-31	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	
R2032	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2033	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2034	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2035	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R2036	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2038	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R2039	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2040	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R2042	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2045	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2047	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2048	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2049	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R2050	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2052	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2055-60	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	6	
R2061, 62	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R2063, 64	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	2	
R2065	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2068	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2073	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2074	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2076	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R2077	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2079	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2080	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2081	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2082	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R2084	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R2085, 86	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	2	
R2087, 88	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R2090	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2092	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R2099-02	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R2104-06	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	3	
R2111	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2112	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2113	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R2115	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2118, 19	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R2201	ERJ6GEYG152	M.RESISTOR CH 1/10W 1.5K	1	
R2202	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2203	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2204-06	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	3	
R2207	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2208	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R2209	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R2211	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2213	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2215	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	1	
R2217-19	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	3	
R2220-23	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	4	
R2224-26	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	3	
R2227	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2228	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2229	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2230	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2231	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R2232	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2233	ERJ6GEYG105	M.RESISTOR CH 1/10W 1M	1	
R2234	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2235	ERJ6GEYG681	M.RESISTOR CH 1/10W 680	1	
R2236	ERJ6GEYJ106	M.RESISTOR CH 1/10W 10M	1	
R2237	ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R2238-40	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	3	
R2241	ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2242	ERJ6GEYF822	M.RESISTOR CH 1/10W 8.2K	1	
R2243	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R2244	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R2245	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2246	ERJ6GEYG152	M.RESISTOR CH 1/10W 1.5K	1	
R2247	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2248	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	1	
R2249	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2250, 51	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	2	
R2252-54	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	3	
R2255	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2256, 57	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	2	
R2258	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R2261	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2262	ERJ6GEYG181	M.RESISTOR CH 1/10W 180	1	
R2263	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2264	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R2265, 66	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	2	
R2267	ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R2268	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2269-75	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	7	
R2280-84	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	5	
R2285	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2286	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	1	
R2287	ERJ6GEYG152	M.RESISTOR CH 1/10W 1.5K	1	
R2288	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R2289	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	1	
R2290	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R2291	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R2292-95	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	4	
R2296, 97	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
R2298, 99	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	2	
R2301	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R2302	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R2303	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2304	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2305	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R2306-12	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	7	
R2313	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2314	ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R2315	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R2316	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R2317	ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R2318	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R2319	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2320	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R2321	ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R2322	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2323	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R2324	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2325	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R2326	ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R2327	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2328, 29	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	2	
R2330	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2331	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R2504	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R2505	ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R2513	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R2514	ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R2523	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	1	
R2524	ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R2525-27	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	3	
R2528	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2534, 35	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	2	
R2537	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	1	
R2538, 39	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	2	
R2540, 41	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	2	
R2543	ERJ6GEYG153	M.RESISTOR CH 1/10W 15K	1	
R2544	ERJ6GEYG474	M.RESISTOR CH 1/10W 470K	1	
R2545	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	1	
R2546	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	1	
R2547	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R2548	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R2549	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2550	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	1	
R2551	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	1	
R2552	ERJ6GEYG474	M.RESISTOR CH 1/10W 470K	1	
R2553	ERJ6GEYG153	M.RESISTOR CH 1/10W 15K	1	
R2554	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	1	
R2555	ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R2556	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3001	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R3002	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3003	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3004	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3005, 06	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3007	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R3008	ERJ3GEYJ302	M.RESISTOR CH 1/16W 3K	1	
R3009	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3010	ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R3011, 12	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R3013	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3014	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3016	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3017	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R3018	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R3019	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3020	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R3021	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3022	ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R3023	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R3024	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3025	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3026	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3027	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3028	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R3034	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R3035	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3036	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R3037	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3038, 39	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	2	
R3041	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R3042	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3043	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3044	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3046	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3047	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R3048, 49	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R3050, 51	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R3052	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3053	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3054	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3055	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3057, 58	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3059	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3060, 61	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R3063	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R3064	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3065	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R3066, 67	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R3068	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R3069, 70	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3072	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3073	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3074	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3075	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3077	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3079	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3080-83	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R3084	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R3085	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R3086	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3088	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3089, 90	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	2	
R3091	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3092	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R3094	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3095	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3097	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3098	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R3099	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R3100	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R3101	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R3102	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R3117	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R3120-22	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	3	
R3123	ERJ3GEYJ564	M. RESISTOR CH 1/16W 560K	1	
R3124	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R3126, 27	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R3128	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R3129	ERJ3GEYJ561	M. RESISTOR CH 1/16W 560	1	
R3201	ERJ2GEJ102	M. RESISTOR CH 1/16W 1K	1	
R3202	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R3203	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3204	ERJ3GEYJ121	M. RESISTOR CH 1/16W 120	1	
R3205	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3206, 07	ERJ3GEYJ121	M. RESISTOR CH 1/16W 120	2	
R3208	ERJ3GEYG822	M. RESISTOR CH 1/16W 8.2K	1	
R3209	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3210	ERJ3GEYJ561	M. RESISTOR CH 1/16W 560	1	
R3211	ERJ3GEYJ680	M. RESISTOR CH 1/16W 68	1	
R3212	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R3213	ERJ3GEYG682	M. RESISTOR CH 1/16W 6.8K	1	
R3214	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R3215	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R3217	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3218	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R3219	ERJ3RBD222	M. RESISTOR CH 1/16W 2.2K	1	
R3220	ERJ3GEYJ564	M. RESISTOR CH 1/16W 560K	1	
R3221	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R3222	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R3223	ERJ3RBD222	M. RESISTOR CH 1/16W 2.2K	1	
R3224	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3225	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R3226	ERJ3GEYJ224	M. RESISTOR CH 1/16W 220K	1	
R3227	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	1	
R3228	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R3229	ERJ3GEYJ224	M. RESISTOR CH 1/16W 220K	1	
R3230	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R3232	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R3233	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R3234	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R3235-37	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	3	
R3238	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R3239	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3240, 41	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	2	
R3242, 43	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R3245	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3248	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R3249	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R3256	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R3257	ERJ3GEYJ124	M. RESISTOR CH 1/16W 120K	1	
R3258-62	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	5	
R3263	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R3264-67	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	4	
R3268	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R3269-72	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	4	
R3301-07	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	7	
R3308	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3309, 10	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R3312	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R3601, 02	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	2	
R3603, 04	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	2	
R3605	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R3606	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
R3607	ERJ6GEYJ224	M. RESISTOR CH 1/10W 220K	1	
R3608, 09	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	2	
R3610	ERJ6GEYF561	M. RESISTOR CH 1/10W 560	1	
R3611	ERJ6GEYG122	M. RESISTOR CH 1/10W 1.2K	1	
R3612	ERJ6GEYG474	M. RESISTOR CH 1/10W 470K	1	
R3613	ERJ6GEYF473	M. RESISTOR CH 1/10W 47K	1	
R3614-19	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	6	
R3620	ERJ6GEYG332	M. RESISTOR CH 1/10W 3.3K	1	
R3621	ERJ6GEYF473	M. RESISTOR CH 1/10W 47K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3622	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	1	
R3623	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R3624	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R3625	ERJ6GEYF473	M. RESISTOR CH 1/10W 47K	1	
R3626	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	1	
R3627	ERJ6GEYG104	M. RESISTOR CH 1/10W 100K	1	
R3628	ERJ6GEYG153	M. RESISTOR CH 1/10W 15K	1	
R3629, 30	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	2	
R3631	ERJ6GEYG222	M. RESISTOR CH 1/10W 2.2K	1	
R3632	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R3633	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	1	
R3634	ERJ6GEYG683	M. RESISTOR CH 1/10W 68K	1	
R3635	ERJ6GEYJ684	M. RESISTOR CH 1/10W 680K	1	
R3636	ERJ6GEYG753	M. RESISTOR CH 1/10W 75K	1	
R3637	ERJ6GEYG331	M. RESISTOR CH 1/10W 330	1	
R3638	ERJ6GEYG824	M. RESISTOR CH 1/10W 820K	1	
R3701	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R3702	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R3703	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3709	ERJ3RBD272	M. RESISTOR CH 1/16W 2.7K	1	
R3710	ERJ3RBD332	M. RESISTOR CH 1/16W 3.3K	1	
R3711	ERJ3GEYJ394	M. RESISTOR CH 1/16W 390K	1	
R3715-18	ERJ3RED560	M. RESISTOR CH 1/16W 56	4	
R3719	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R3720	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R3721-25	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	5	
R3728-33	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	6	
R3735	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R3736	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3737	ERJ3GEYJ270	M. RESISTOR CH 1/16W 27	1	
R3739, 40	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R3901-09	ERJ6GEYG750	M. RESISTOR CH 1/10W 75	9	
R3910	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	1	
R3911	ERJ6GEYG331	M. RESISTOR CH 1/10W 330	1	
R3912	ERJ6GEYF333	M. RESISTOR CH 1/10W 33K	1	
R3913	ERJ6GEYG121	M. RESISTOR CH 1/10W 120	1	
R3914	ERJ6GEYJ111	M. RESISTOR CH 1/10W 110	1	
R3915	ERJ6GEYG223	M. RESISTOR CH 1/10W 22K	1	
R3916	ERJ6GEYF333	M. RESISTOR CH 1/10W 33K	1	
R3917	ERJ6GEYG331	M. RESISTOR CH 1/10W 330	1	
R3918	ERJ6GEYG223	M. RESISTOR CH 1/10W 22K	1	
R3919	ERJ6GEYJ111	M. RESISTOR CH 1/10W 110	1	
R3920	ERJ6GEYG121	M. RESISTOR CH 1/10W 120	1	
R3921-23	ERJ6GEYG750	M. RESISTOR CH 1/10W 75	3	
R3924	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R3925	ERJ6GEYG104	M. RESISTOR CH 1/10W 100K	1	
R3926	ERJ6GEYG750	M. RESISTOR CH 1/10W 75	1	
R3927	ERJ6GEYF822	M. RESISTOR CH 1/10W 8.2K	1	
R3928	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	1	
R3931	ERJ6GEYG222	M. RESISTOR CH 1/10W 2.2K	1	
R3932, 33	ERJ6GEYF473	M. RESISTOR CH 1/10W 47K	2	
R3934	ERJ6GEYG273	M. RESISTOR CH 1/10W 27K	1	
R3935	ERJ6GEYG683	M. RESISTOR CH 1/10W 68K	1	
R3936	ERJ6GEYG153	M. RESISTOR CH 1/10W 15K	1	
R3937	ERJ6GEYG183	M. RESISTOR CH 1/10W 18K	1	
R4001	ERJ6GEYG183	M. RESISTOR CH 1/10W 18K	1	
R4002-04	ERJ6GEYF333	M. RESISTOR CH 1/10W 33K	3	
R4005	ERJ6GEYG683	M. RESISTOR CH 1/10W 68K	1	
R4006	ERJ6GEYG223	M. RESISTOR CH 1/10W 22K	1	
R4007	ERJ6GEYG683	M. RESISTOR CH 1/10W 68K	1	
R4008	ERJ6GEYG223	M. RESISTOR CH 1/10W 22K	1	
R4009	ERJ6GEYG104	M. RESISTOR CH 1/10W 100K	1	
R4010	ERJ6GEYG223	M. RESISTOR CH 1/10W 22K	1	
R4011	ERJ6GEYG104	M. RESISTOR CH 1/10W 100K	1	
R4012	ERJ6GEYG223	M. RESISTOR CH 1/10W 22K	1	
R4014	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GEYJ113	M. RESISTOR CH 1/10W 11K	1	
R4016	ERJ6GEYG222	M. RESISTOR CH 1/10W 2.2K	1	
R4017	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	1	
R4018	ERJ6GEYG105	M. RESISTOR CH 1/10W 1M	1	
R4019	ERJ6RBD471	M. RESISTOR CH 1/10W 470	1	
R4020	ERJ6RBD102	M. RESISTOR CH 1/10W 1K	1	
R4021, 22	ERJ6RBD202	M. RESISTOR CH 1/10W 2K	2	
R4023	ERJ6RBD102	M. RESISTOR CH 1/10W 1K	1	
R4024	ERJ6RBD201	M. RESISTOR CH 1/10W 200	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4025-27	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	3	
R4203,04	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R4205,06	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R4207-10	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	4	
R4213,14	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R4215,16	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R4217,18	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R4219-22	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	4	
R4223,24	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R4225,26	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R4227,28	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R4229-32	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	4	
R4233	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4301	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4302	ERJ6RBD391	M.RESISTOR CH 1/10W 390	1	
R4303	ERJ6RBD472	M.RESISTOR CH 1/10W 4.7K	1	
R4305	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4306,07	ERJ6RBD183	M.RESISTOR CH 1/10W 18K	2	
R4308	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R4309	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	1	
R4310	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R4311	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R4312	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R4313	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	1	
R4314	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R4315	ERJ6RBD123	M.RESISTOR CH 1/10W 12K	1	
R4316	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4317	ERJ6RBD123	M.RESISTOR CH 1/10W 12K	1	
R4318	ERJ6RED204	M.RESISTOR CH 1/10W 200K	1	
R4319	ERJ6RBD104	M.RESISTOR CH 1/10W 100K	1	
R4320	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4321	ERJ6RBD104	M.RESISTOR CH 1/10W 100K	1	
R4322	ERJ6RED204	M.RESISTOR CH 1/10W 200K	1	
R4323	ERJ6RBD273	M.RESISTOR CH 1/10W 27K	1	
R4324	ERJ6RBD751	M.RESISTOR CH 1/10W 750	1	
R4325	ERJ6RED204	M.RESISTOR CH 1/10W 200K	1	
R4326	ERJ6RBD112	M.RESISTOR CH 1/10W 1.1K	1	
R4327	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R4328	ERJ6RED204	M.RESISTOR CH 1/10W 200K	1	
R4329	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	1	
R4330	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R4331	ERJ6GEYG105	M.RESISTOR CH 1/10W 1M	1	
R4332	ERJ6RBD223	M.RESISTOR CH 1/10W 22K	1	
R4333	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R4334	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R4335	ERJ6RBD223	M.RESISTOR CH 1/10W 22K	1	
R4336	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R4337	ERJ6RBD273	M.RESISTOR CH 1/10W 27K	1	
R4338	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4339	ERJ6RBD363	M.RESISTOR CH 1/10W 36K	1	
R4340	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4342	ERJ6RBD683	M.RESISTOR CH 1/10W 68K	1	
R4343	ERJ6RBD223	M.RESISTOR CH 1/10W 22K	1	
R4344	ERJ6RBD683	M.RESISTOR CH 1/10W 68K	1	
R4345	ERJ6RBD223	M.RESISTOR CH 1/10W 22K	1	
R4347	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4348,49	ERJ6GEYG681	M.RESISTOR CH 1/10W 680	2	
R4350	ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R4351	ERJ6RBD392	M.RESISTOR CH 1/10W 3.9K	1	
R4352	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4353	ERJ6RBD392	M.RESISTOR CH 1/10W 3.9K	1	
R4354,55	ERJ6RBD223	M.RESISTOR CH 1/10W 22K	2	
R4356	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4357	ERJ6RBD363	M.RESISTOR CH 1/10W 36K	1	
R4358	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R4359	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4360	ERJ6RBD363	M.RESISTOR CH 1/10W 36K	1	
R4361	ERDAS3G680	C.RESISTOR 1/4W 68	1	
R4362	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R4363	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R4364	ERJ6RBD752	M.RESISTOR CH 1/10W 7.5K	1	
R4365	ERDAS3G680	C.RESISTOR 1/4W 68	1	
R4366	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R4367	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4368	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4369	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R4370	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R4371	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R4372	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R4373	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R4374	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R4375	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R4376	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4377	ERJ6RBD752	M.RESISTOR CH 1/10W 7.5K	1	
R4379	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R4380	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R4381	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R4382	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4384	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R4385	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R4386	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R4387	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4388	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R4389	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R4390	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R4391	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4392	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4393	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R4394	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4396	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R4397	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4398	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R4401-03	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	3	
R4405-07	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	3	
R4701,02	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	2	
R4703	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R4704	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4705	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R4706-09	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	4	
R4710	ERJ6GEYG152	M.RESISTOR CH 1/10W 1.5K	1	
R4712-18	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	7	
R4719	ERJ6GEYG560	M.RESISTOR CH 1/10W 56	1	
R4721	ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R4722	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R4723	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R4724	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R4726	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4727	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R4728,29	ERJ6GEYG273	M.RESISTOR CH 1/10W 27K	2	
R4901,02	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R4903,04	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	2	
R4905,06	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R4907,08	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	2	
R4909,10	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R4911,12	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	2	
R6001	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6003	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6006	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6008	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R6009	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6010	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R6011	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R6012	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R6014	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R6015	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R6016-18	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	3	
R6019	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6024	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R6025-28	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R6029	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R6034,35	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R6036-38	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	3	
R6039	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6042	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R6043	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6044	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R6045	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6046	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6047	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R6048,49	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6050	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R6051	ERJ3GEYJ151	M. RESISTOR CH 1/16W 150	1	
R6052	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R6053	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R6054, 55	ERJ3GEYG103	M. RESISTOR CH 1/16W 10K	2	
R6056, 57	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	2	
R6058-61	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	4	
R6063-65	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	3	
R6066	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R6067	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R6068, 69	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	2	
R6070	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R6071	ERJ3GEYG223	M. RESISTOR CH 1/16W 22K	1	
R6072	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R6073	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R6074, 75	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R6080	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R6082	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R6084, 85	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R6087	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R6089-91	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	3	
R6092	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R6093	ERJ3GEYJ560	M. RESISTOR CH 1/16W 56	1	
R6095	ERJ3GEYG223	M. RESISTOR CH 1/16W 22K	1	
R6096	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R6097	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R6098	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R6099	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R6100	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R6101	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R6102, 03	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	2	
R6104	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R6105	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R6107	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R7601, 02	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	2	
R7603	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
R7604	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	NV-DV10000EC
R7605, 06	ERG2SJ331	M. RESISTOR 2W 330	2	
R7607, 08	ERJ6GEYG683	M. RESISTOR CH 1/10W 68K	2	
R7609, 10	ERJ6GEYG151	M. RESISTOR CH 1/10W 150	2	
R7611	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R7612	ERJ6GEYF561	M. RESISTOR CH 1/10W 560	1	
R7613, 14	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	2	
R7620	ERDS2TJ182	C. RESISTOR 1/4W 1.8K	1	
R7622	ERJ6GEYG104	M. RESISTOR CH 1/10W 100K	1	
R7624	ERJ6GEYG182	M. RESISTOR CH 1/10W 1.8K	1	
R7651	ERJ6GEYF473	M. RESISTOR CH 1/10W 47K	1	
R7936	ERJ6GEYG392	M. RESISTOR CH 1/10W 3.9K	1	
R7937	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	1	
R7938	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R7939-41	ERJ6GEYJ471	M. RESISTOR CH 1/10W 470	3	
R7942, 43	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	2	
R7944	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R7945	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	1	
R7946	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R7947	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	1	
R7948	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R7950	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R7952	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	NV-DV10000B
R7953	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	NV-DV10000EC
R7954	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R30001	ERJ6GEYG562	M. RESISTOR CH 1/10W 5.6K	1	
R30002	ERJ6GEYG223	M. RESISTOR CH 1/10W 22K	1	
R30003	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R30004	ERJ6GEYG272	M. RESISTOR CH 1/10W 2.7K	1	
R30005	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R30006	ERJ3GEYG114	M. RESISTOR CH 1/16W 110K	1	
R30008	ERJ6GEYG223	M. RESISTOR CH 1/10W 22K	1	
R30009	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
R30010	ERJ6GEYG183	M. RESISTOR CH 1/10W 18K	1	
R30011	ERJ3GEYJ123	M. RESISTOR CH 1/16W 12K	1	
R30012	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
R30013	ERJ6GEYJ112	M. RESISTOR CH 1/10W 1.1K	1	
R30014	ERJ6GEYG222	M. RESISTOR CH 1/10W 2.2K	1	
R30017	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R30018	ERJ3GEYJ181	M. RESISTOR CH 1/16W 180	1	
R30019	ERJ3GEYJ561	M. RESISTOR CH 1/16W 560	1	
R30020	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R30021	ERJ3GEYJ271	M. RESISTOR CH 1/16W 270	1	
R30022	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R30023	ERJ3GEYJ112	M. RESISTOR CH 1/16W 1.1K	1	
R30024	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R30025	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R30026	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
R30027	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R30028	ERJ6GEYF561	M. RESISTOR CH 1/10W 560	1	
R30029	ERJ6GEYF333	M. RESISTOR CH 1/10W 33K	1	
R30030	ERJ3GEYJ241	M. RESISTOR CH 1/16W 240	1	
R30031	ERJ6GEYF333	M. RESISTOR CH 1/10W 33K	1	
R30032	ERJ3GEYJ112	M. RESISTOR CH 1/16W 1.1K	1	
R30033	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
R30034	ERJ6GEYG821	M. RESISTOR CH 1/10W 820	1	
R30035, 36	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	2	
R30037	ERJ3GEYJ112	M. RESISTOR CH 1/16W 1.1K	1	
R30038	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R30039	ERJ3GEYJ561	M. RESISTOR CH 1/16W 560	1	
R30040	ERJ3GEYJ273	M. RESISTOR CH 1/16W 27K	1	
R30041	ERJ6GEYG181	M. RESISTOR CH 1/10W 180	1	
R30042	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R30043	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R30044	ERJ3GEYG822	M. RESISTOR CH 1/16W 8.2K	1	
R30045	ERJ6GEYF123	M. RESISTOR CH 1/10W 12K	1	
R30046, 47	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R30048	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R30051	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R30052	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R30053	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R30054	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R30055	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R30056	ERJ3RBD153	M. RESISTOR CH 1/16W 15K	1	
R30057	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R30058	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
R30061	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
R30064	ERJ6GEYG432	M. RESISTOR CH 1/10W 4.3K	1	
R30065	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R30066, 67	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	2	
R30068	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R30069	ERJ6GEYF561	M. RESISTOR CH 1/10W 560	1	
R30070-72	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	3	
R30073	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R30074	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R30075, 76	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	2	
R30077, 78	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R30079	ERJ3GEYJ561	M. RESISTOR CH 1/16W 560	1	
R30080	ERJ3GEYJ334	M. RESISTOR CH 1/16W 330K	1	
R30081	ERJ6GEYG823	M. RESISTOR CH 1/10W 82K	1	
R30082	ERJ6RBD104	M. RESISTOR CH 1/10W 100K	1	
R30083	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R30086	ERJ3GEYJ561	M. RESISTOR CH 1/16W 560	1	
R30087	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R30088	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	1	
R30089	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R30090	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R30091, 92	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	2	
R30093	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R30094	ERJ6GEYG682	M. RESISTOR CH 1/10W 6.8K	1	
R30095	ERJ6GEYG332	M. RESISTOR CH 1/10W 3.3K	1	
R30097	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R30098	ERJ6GEYG221	M. RESISTOR CH 1/10W 220	1	
R30099	ERJ3GEYJ273	M. RESISTOR CH 1/16W 27K	1	
R30100	ERJ3GEYJ224	M. RESISTOR CH 1/16W 220K	1	
R30101	ERJ6GEYG104	M. RESISTOR CH 1/10W 100K	1	
R30102	ERJ6GEYJ225	M. RESISTOR CH 1/10W 2.2M	1	
R30103	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R30104	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R30105	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R30106, 07	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	2	
R30108	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	1	
R30111	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R30114, 15	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R30119,20	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R30123,24	ERJ6GEYG332	M.RESISTOR CH 1/10W 3.3K	2	
R30126	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R30127,28	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R30131-34	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	
R30135,36	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	2	
R30139,40	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	2	
R30141	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R30142	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R30143,44	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R30145	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	1	
R30146	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R30148	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R30149	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R30150,51	ERJ6GEYG682	M.RESISTOR CH 1/10W 6.8K	2	
R30152	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R30153	ERJ3GEYJ752	M.RESISTOR CH 1/16W 7.5K	1	
R30154	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R30155	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R30156	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R30157	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R30158	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	1	
R30159	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R30160,61	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	2	
R30166	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R30167	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R30168	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R30169	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	1	
R30170	ERJ6GEYG821	M.RESISTOR CH 1/10W 820	1	
R30171	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R30172	ERJ6GEYG911	M.RESISTOR CH 1/10W 910	1	
R30173	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	1	
R30174	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R30175	ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R30176	ERJ3GEYJ111	M.RESISTOR CH 1/16W 110	1	
R30177	ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R30178	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R30179	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	1	
R30180	ERJ6GEYG153	M.RESISTOR CH 1/10W 15K	1	
R30181	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R30182,83	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	2	
R30184	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R30185	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R30186	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R30187	ERJ6GEYG821	M.RESISTOR CH 1/10W 820	1	
R30188,89	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	2	
R30190	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R30195	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R30196	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R30197	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R30198	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R30199	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R30200	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R30201	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R30202	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R30203	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	1	
R30204	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	1	
R30205	ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R30206	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R30207	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R30208	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R30211	ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R30212	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R30213	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R30216	ERJ3GEYJ431	M.RESISTOR CH 1/16W 430	1	
R30217,18	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R30219	ERJ6GEYF473	M.RESISTOR CH 1/10W 47K	1	
R30220	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	1	
R30221	ERJ6GEYG222	M.RESISTOR CH 1/10W 2.2K	1	
R30222	ERJ6GEYF561	M.RESISTOR CH 1/10W 560	1	
R30223	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R30224	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R30225	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R30226	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R30227	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R30228	ERJ6GEYG821	M.RESISTOR CH 1/10W 820	1	
R30229	ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R30230	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R30231	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R30232	ERJ6GEYF333	M.RESISTOR CH 1/10W 33K	1	
R30233	ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R30234	ERJ6GEYG331	M.RESISTOR CH 1/10W 330	1	
R30235	ERJ6GEYJ111	M.RESISTOR CH 1/10W 110	1	
R30236	ERJ6GEYG121	M.RESISTOR CH 1/10W 120	1	
R30237	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R30238	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R30239,40	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R30241,42	VLF1315A102	CHIP BEAD	2	
R30243	ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	1	
R30244	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R30245	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R30246	ERJ6GEYF472	M.RESISTOR CH 1/10W 4.7K	1	
R30247	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R30248,49	ERJ6GEYG101	M.RESISTOR CH 1/10W 100	2	
R30250	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
S3901	VSS0513	SLIDE SWITCH	1	
TU7601	ENG47288G1	TUNER	1	NV-DV10000EC
TU7601	VEP07801AR	TV DEMODULATOR PACK C.B.A	1	(RTL) NV-DV10000EC
TU7601	ENG47289G1	TUNER	1	NV-DV10000B
TU7601	VEP07801AQ	TV DEMODULATOR PACK C.B.A	1	(RTL) NV-DV10000B
VC30001	ECRJA020E11	TRIMMER CAPACITOR 20P	1	
VC30002,03	ECRJA050M11	TRIMMER CAPACITOR 50P	2	
VR30001	EVM7JGA00B15	V.RESISTOR 0.1M	1	
VR30002	EVMEGSA00B24	V.RESISTOR 20K	1	
VR30003,04	EVM7JGA00B54	V.RESISTOR 50K	2	
VZ2501	VSC3904	BS SHIELD COVER (MAIN)	1	
VZ2502	VSC4233	BS SHIELD COVER (BOTTOM)	1	
VZ2503	VSC4232	BS SHIELD COVER (TOP)	1	
X2001	VSX0847	CRYSTAL OSCILLATOR	1	
X2002	VSX0872	CERAMIC OSCILLATOR	1	
X2201	VSX0830	CRYSTAL OSCILLATOR	1	
X2202	VEY0069	OSCILLATOR (D) UNIT	1	
X2203	EF0EC7374A4E	CERAMIC OSCILLATOR	1	
X3001	VSX0848	CRYSTAL OSCILLATOR	1	
X3003	VSX0846	CRYSTAL OSCILLATOR	1	
X3004	VSX0932	CERAMIC OSCILLATOR	1	
X4701	VSX0934	CERAMIC OSCILLATOR	1	
X6001	VSX0847	CRYSTAL OSCILLATOR	1	
X7902	EF0EC4004A4	CERAMIC OSCILLATOR	1	
X30001	VSX1030	CRYSTAL OSCILLATOR	1	
X30002	VSX0574	CRYSTAL OSCILLATOR	1	
X30003	VSX0830	CRYSTAL OSCILLATOR	1	
X30004	VSX0966	CRYSTAL OSCILLATOR	1	
X30005	VEY0067	OSCILLATOR (C) UNIT	1	
ZA3001-03	XTV3+6J	SCREW	3	
ZA3004	VSC4689	DIGITAL SHIELD COVER (B)	1	
ZA3005	VSC4690	DIGITAL SHIELD COVER (T)	1	
ZA3901	VEJ1819	I/O JACK BOARD	1	
ZA3902-05	XTV3+8GFZ	SCREW	4	
ZA30001-03	XTV3+6J	SCREW	3	
ZA30004	VSC4689	DIGITAL SHIELD COVER (B)	1	
ZA30005	VSC4690	DIGITAL SHIELD COVER (T)	1	
ZB2501	VJF0442	MINI CLAMPER	1	
ZB4001,02	VMP4985	CARD CORNER HOLDER	2	
ZB6701,02	VMP4985	CARD CORNER HOLDER	2	
		MISCELLANEOUS		
	VEE0C99	WIRE CABLE	1	P1102 - P6707
	VWJ1195	FLAT CARD CABLE	1	P7502 - P7901
	VWJ1196	FLAT CARD CABLE	1	P7501 - P7902
	VWJ1197	FLAT CARD CABLE	1	PS4851 - P6401
	VWJ1248	FLAT CARD CABLE	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP05351A	HEAD AMP C.B.A.		(RTL)
C5001-04	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C5007	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5010	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5013	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C5014	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C5015	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5016	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C5017	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5018	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C5019	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5020,21	ECST1AY106Z	T.CAPACITOR CH 10V 10U	2	
C5022	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C5023,24	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5025	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C5026	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C5027	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C5028	ECUX1H122KBV	C.CAPACITOR CH 50V 1200P	1	
C5029	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C5030	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C5031	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5032	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C5033	ECUX1H681JCV	C.CAPACITOR CH 50V 680P	1	
C5034	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5035	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C5036,37	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	2	
C5038	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5047	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5051	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
FP5001	VJS3319B008	CONNECTOR (FEMALE) 8P	1	
FP5002	VJS3251	CONNECTOR (FEMALE)	1	
IC5001	AN3731FHQ	IC	1	
L5002,03	VLQ0163K220	COIL 22UH	2	
L5005-07	ELJPA100KB	COIL 10UH	3	
Q5002,03	2SC3937	TRANSISTOR	2	
Q5005,06	2SD1938F	TRANSISTOR	2	
R5002	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R5003	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5004	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R5005	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R5010	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R5012	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R5013	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R5014,15	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	2	
R5016,17	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R5018	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R5019	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R5020	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R5021	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R5024	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5025	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R5026	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5028	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R5029-32	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	
R5040,41	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
		MISCELLANEOUS		
	VSC4698	HEAD AMP SHIELD COVER (A)	1	
■	VEP02557B	MECHANISM DRIVE C.B.A.		(RTL)
C2701,02	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C2703	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2704	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	1	
C2705	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2706	ECUX1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2707	ECUX1A104KBV	C.CAPACITOR CH 10V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C2708	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2709	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C2710,11	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	2	
C2712,13	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	2	
C2714,15	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C2716-18	ECUX1C333KBV	C.CAPACITOR CH 16V 0.033U	3	
C2719	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2720-22	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	3	
C2723	EEVHB1A330	E.CAPACITOR 10V 33U	1	
C2724	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2725	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	1	
C2726	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2727	ECUX1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2728	ECUX1A104KBV	C.CAPACITOR CH 10V 0.1U	1	
C2729	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2730	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C2731,32	EEVHB1H2R2	E.CAPACITOR 50V 2.2U	2	
C2733,34	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	2	
C2735,36	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C2737-39	ECUX1C333KBV	C.CAPACITOR CH 16V 0.033U	3	
C2740	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2741-43	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	3	
C2745	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2747	ECUX1C474ZFN	C.CAPACITOR CH 16V 0.47U	1	
C2748	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2749	ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C2751	ECUX1C474ZFN	C.CAPACITOR CH 16V 0.47U	1	
C2752	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2753	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C2754	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C2755	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C2757	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C2758,59	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C2760	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C2762	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2763	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C2764	ECUM0J225KBN	C.CAPACITOR CH 6.3V 2.2U	1	
C2766	ECUX1E223KBV	C.CAPACITOR CH 25V 0.022U	1	
C2767	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2768	EEVHB1E4R7	E.CAPACITOR 25V 4.7U	1	
C2769-71	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C2772-77	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	6	
C2778-80	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	3	
C2781,82	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	
C2783	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C2784-87	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	4	
C2788	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C2789,90	ECUX1H562KBV	C.CAPACITOR CH 50V 5600P	2	
C2791	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C2792	EEVHB1C100	E.CAPACITOR 16V 10U	1	
C2793	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2794	ECUM0J225KBN	C.CAPACITOR CH 6.3V 2.2U	1	
C2795	ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C2796	ECUX1H562KBV	C.CAPACITOR CH 50V 5600P	1	
C2797	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2798	ECUX1H562KBV	C.CAPACITOR CH 50V 5600P	1	
C2799,00	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C2801,02	EEVHP1HR47	E.CAPACITOR 50V 0.47U	2	
C2803	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2807,08	EEVHB1C100	E.CAPACITOR 16V 10U	2	
C2809	EEVHB0J330	E.CAPACITOR 6.3V 33U	1	
C2810	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2811	EEVHB0J330	E.CAPACITOR 6.3V 33U	1	
C6301-06	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	6	
C6307	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C6308-13	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	6	
C6314-16	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	3	
C6317	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C6318-27	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	10	
C6328	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C6501	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6502	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6504	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C6505	ECUX1C224ZFV	C.CAPACITOR CH 16V 0.22U	1	
C6506	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C6507	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C6509	EEVHB1C470	E. CAPACITOR 16V 47U	1	
C6510	ECUX1C224ZFV	C. CAPACITOR CH 16V 0. 22U	1	
C6511, 12	EEVHB1H3R3	E. CAPACITOR 50V 3. 3U	2	
C6513	EEVHB1C100	E. CAPACITOR 16V 10U	1	
C6515	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6516-18	ECUX1H103ZFV	C. CAPACITOR CH 50V 0. 01U	3	
C6519	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6520	EEVHB1H3R3	E. CAPACITOR 50V 3. 3U	1	
C6522	EEVHB1C100	E. CAPACITOR 16V 10U	1	
C6523-26	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	4	
C6527	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C6529	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C6530	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6531	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C6532	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C6534	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C6536	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C6537	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6538	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C6539	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C6541	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6542, 43	EEVHB1H3R3	E. CAPACITOR 50V 3. 3U	2	
C6544-47	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	4	
C6552-55	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	4	
C6556, 57	EEVHB1C470	E. CAPACITOR 16V 47U	2	
C6558	ECUX1C104ZFV	C. CAPACITOR CH 16V 0. 1U	1	
C6559	EEVHB1C100	E. CAPACITOR 16V 10U	1	
C6565, 66	EEVHB0J220	E. CAPACITOR 6. 3V 22U	2	
D2713-16	MA165VT	DIODE	4	
D2717	MA8056-M	DIODE	1	
D6301	MA4051-L	DIODE	1	
D6302-09	AK04	DIODE	8	
D6310	MA142WK	DIODE	1	
D6311	MA4043L	DIODE	1	
D6312-15	AK04	DIODE	4	
D6316	MA142WK	DIODE	1	
D6317	MA4043L	DIODE	1	
D6318-34	MA142WK	DIODE	17	
D6501	AK04	DIODE	1	
D6502, 03	MA721	DIODE	2	
D6511	MA721WK	DIODE	1	
D6512	MA8056	DIODE	1	
D6513	MA8039-H	DIODE	1	
IC2701	NJM2903M	IC	1	
IC2702	UPC4558G2	IC	1	
IC2703, 04	AN3834K	IC	2	
IC2705	UPC4558G2	IC	1	
IC2706	NJM2903M	IC	1	
IC2707	NJM2904M	IC	1	
IC2708	TB6519F	IC	1	
IC2709	PU3210	IC	1	
IC2710	PU3110	IC	1	
IC2711	PU3210	IC	1	
IC2712	PU3110	IC	1	
IC2714	NJM2903M	IC	1	
IC2715	NJM2904M	IC	1	
IC6301-03	BA6219BF	IC	3	
IC6304	UPD4538BG	IC	1	
IC6305	NJM2903M	IC	1	
IC6306	UPD4538BG	IC	1	
IC6501, 02	XRA6887-U4	IC	2	
IC6503	NJM2904M	IC	1	
IC6504, 05	UPC4558G2	IC	2	
IC6506-08	NJM2903M	IC	3	
IC6509, 10	NJM2904M	IC	2	
IC6511	UPC4558G2	IC	1	
IC6512	M66010GP	IC	1	
IC6513	UPC4558G2	IC	1	
IC6514	ON1114. VT	IC	1	
K2701, 02	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L2701, 02	VLQ0599J680	COIL 68UH	2	
LB2702	VLP0145	COIL	1	
P2701, 02	VJS3813B017	CONNECTOR (FEMALE) 17P	2	
P2703	VJS3319B009	CONNECTOR (FEMALE) 9P	1	
P2704	VJS3406B019	CONNECTOR (FEMALE) 19P	1	
P2705	VJP1929T	CONNECTOR (MALE)	1	
P6301, 02	VJP3518B002	CONNECTOR (MALE) 2P	2	
P6303	VJP3518B003	CONNECTOR (MALE) 3P	1	
P6501	VJP3518B002	CONNECTOR (MALE) 2P	1	
P6502	VJP4044A002	CONNECTOR (MALE) 2P	1	
P6503	VJP3172D002	CONNECTOR (MALE) 2P	1	
P6504	VJS3537B026G	CONNECTOR (FEMALE) 26P	1	
P6505	VJS3537B032G	CONNECTOR (FEMALE) 32P	1	
P6506	VJP3125B002	CONNECTOR (MALE) 2P	1	
P6507	VJP3172D002	CONNECTOR (MALE) 2P	1	
P6508	VJP3172D004	CONNECTOR (MALE) 4P	1	
P6509	VJS2959B008	CONNECTOR (FEMALE) 8P	1	
P6510	VJP3172D002	CONNECTOR (MALE) 2P	1	
P6514	VJP3172D004	CONNECTOR (MALE) 4P	1	
P6520	VJP3172D003	CONNECTOR (MALE) 3P	1	
Q2701	2SD1328-R	TRANSISTOR	1	
Q2703, 04	MSD601-R	TRANSISTOR	2	
Q6301	MSD601-R	TRANSISTOR	1	
Q6302	2SB1073	TRANSISTOR	1	
Q6303	MSD601-R	TRANSISTOR	1	
Q6304	2SB1073	TRANSISTOR	1	
Q6305	MSD601-R	TRANSISTOR	1	
Q6306, 07	2SB1073	TRANSISTOR	2	
Q6308	MSD601-R	TRANSISTOR	1	
Q6502	2SB709A	TRANSISTOR	1	
Q6503	2SB1073	TRANSISTOR	1	
Q6504	2SB710	TRANSISTOR	1	
Q6505	2SB1073	TRANSISTOR	1	
QR6301-03	XN1112	TRANSISTOR	3	
QR6304, 05	MUN2213	TRANSISTOR-RESISTOR	2	
QR6306-09	XN1213	TRANSISTOR	4	
QR6314-16	MUN2213	TRANSISTOR-RESISTOR	3	
QR6317	UN221D	TRANSISTOR-RESISTOR	1	
QR6318	XN4213	TRANSISTOR-RESISTOR	1	
QR6502	MUN2213	TRANSISTOR-RESISTOR	1	
QR6503	MUN2212	TRANSISTOR-RESISTOR	1	
QR6504	UN2211	TRANSISTOR-RESISTOR	1	
QR6508	XN1212	TRANSISTOR	1	
QR6511	MUN2113	TRANSISTOR-RESISTOR	1	
QR6514	MUN2113	TRANSISTOR-RESISTOR	1	
QR6515	MUN2213	TRANSISTOR-RESISTOR	1	
QR6517	MUN2213	TRANSISTOR-RESISTOR	1	
R2701	ERJ3RBD273	M. RESISTOR CH 1/16W 27K	1	
R2703, 04	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5. 6K	2	
R2705	ERJ3GEYG152	M. RESISTOR CH 1/16W 1. 5K	1	
R2706	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5. 6K	1	
R2707	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R2710	ERJ3RBD473	M. RESISTOR CH 1/16W 47K	1	
R2711	ERJ3RBD823	M. RESISTOR CH 1/16W 82K	1	
R2712	ERJ3RBD153	M. RESISTOR CH 1/16W 15K	1	
R2713	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	1	
R2714, 15	ERJ3GEYJ271	M. RESISTOR CH 1/16W 270	2	
R2716	ERJ14YJ330	M. RESISTOR CH 1/4W 33	1	
R2717	ERJ14YK2R2	M. RESISTOR CH 1/4W 2. 2	1	
R2718	ERJ3GEYG472	M. RESISTOR CH 1/16W 4. 7K	1	
R2719	ERJ3GEYG393	M. RESISTOR CH 1/16W 39K	1	
R2720-22	ERJ14YJ330	M. RESISTOR CH 1/4W 33	3	
R2723	ERJ14YK2R2	M. RESISTOR CH 1/4W 2. 2	1	
R2724	ERJ3GEYG472	M. RESISTOR CH 1/16W 4. 7K	1	
R2725	ERJ3GEYG393	M. RESISTOR CH 1/16W 39K	1	
R2726, 27	ERJ14YJ330	M. RESISTOR CH 1/4W 33	2	
R2728, 29	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R2730	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R2731	ERJ3GEYJ184	M. RESISTOR CH 1/16W 180K	1	
R2732	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2733	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2734	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R2735	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R2736	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R2737	ERJ3GEYG273	M.RESISTOR CH 1/16W 27K	1	
R2738	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2739	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2740	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2741	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2742	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2743	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2744	ERJ3GEYG222	M.RESISTOR CH 1/16W 2.2K	1	
R2745	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2747	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2748	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R2749	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2750	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R2751	ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2752	ERJ8GEYJR47	M.RESISTOR CH 1/8W 0.47	1	
R2753	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R2754-56	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	3	
R2757	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R2758	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2760	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R2761	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2762	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R2763	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R2764	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R2765	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R2766	ERJ3GEYG392	M.RESISTOR CH 1/16W 3.9K	1	
R2768	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2769	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R2770	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R2771	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R2772	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R2773,74	ERJ14YK2R2	M.RESISTOR CH 1/4W 2.2	2	
R2775	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	1	
R2777	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R2778	ERJ3GEYG912	M.REISITOR CH 1/16W 9.1K	1	
R2779	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R2780,81	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R2782	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2783	ERJ3GEYG683	M.RESISTOR CH 1/16W 68K	1	
R2784	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R2786	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R2787	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R2788	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R2789	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2790	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2791	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R2792	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R2793	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R2794	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2795	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2796	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R2798	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R2799	ERJ3GEYG154	M.RESISTOR CH 1/16W 150K	1	
R2800	ERJ8RQJR27	M.RESISTOR CH 1/8W 0.27	1	
R2801,02	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R2803	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R2804	ERJ6GEYG122	M.RESISTOR CH 1/10W 1.2K	1	
R2805	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2806	ERJ3GEYG333	M.RESISTOR CH 1/16W 33K	1	
R2807	ERJ3GEYG563	M.RESISTOR CH 1/16W 56K	1	
R2808	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R6301	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6302	ERJ14YJ561	M.RESISTOR CH 1/4W 560	1	
R6303-07	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	5	
R6308	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6309,10	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	2	
R6311	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6312,13	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R6314	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6315	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6316,17	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R6318	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6319	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6320	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6321	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6322,23	ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	2	
R6324-29	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	6	
R6330	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6331,32	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R6333	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6334	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R6335	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6336	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6337	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6338	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R6339	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R6340	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6341	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6342	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R6343	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R6344	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6345	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6346	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6347-49	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
R6501	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R6502	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R6503	ERJ3GEYG154	M.RESISTOR CH 1/16W 150K	1	
R6504	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R6505	ERJ14YJ101	M.RESISTOR CH 1/4W 100	1	
R6506	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6507	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R6508	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R6509	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R6510	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R6511	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R6512	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R6513	ERJ3RBD113	M.RESISTOR CH 1/16W 11K	1	
R6514	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6515	ERJ14YK3R9	M.RESISTOR CH 1/4W 3.9	1	
R6516-18	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	3	
R6519	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R6520	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R6521	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6524	ERJ14YK5R6	M.RESISTOR CH 1/4W 5.6	1	
R6525-27	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	3	
R6529	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6530	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6532	ERJ3GEYG103	M.RESISTOR CH 1/16W 10K	1	
R6533,34	ERJ3RED184	M.RESISTOR CH 1/16W 180K	2	
R6535	ERJ3GEYG123	M.RESISTOR CH 1/16W 12K	1	
R6536	ERJ3GEYG363	M.RESISTOR CH 1/16W 36K	1	
R6537,38	ERJ3GEYG223	M.RESISTOR CH 1/16W 22K	2	
R6541	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R6542	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6543	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R6544	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R6545	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R6546	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6547	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6548	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R6549	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R6550	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R6551	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6552	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R6553,54	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R6555	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R6556,57	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R6558	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R6559,60	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R6561	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R6562,63	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R6564	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R6565	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6566	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R6567	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6568	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6569	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R6570	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R6571	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R6572	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R6573	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R6574	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R6575	ERJ3RBD182	M. RESISTOR CH 1/16W 1. 8K	1	
R6576, 77	ERJ3RBD223	M. RESISTOR CH 1/16W 22K	2	
R6578-80	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2. 2K	3	
R6581-86	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2. 7K	6	
R6587-89	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2. 2K	3	
R6590	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R6592	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R6593, 94	ERJ6GEYG222	M. RESISTOR CH 1/10W 2. 2K	2	
R6595	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R6596	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1. 2K	1	
R6597	ERJ3GEYG332	M. RESISTOR CH 1/16W 3. 3K	1	
R6598	ERJ3GEYG682	M. RESISTOR CH 1/16W 6. 8K	1	
R6599	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R6600	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R6602	ERJ14YK3R3	M. RESISTOR CH 1/4W 3. 3	1	
R6603, 04	ERJ14YK5R6	M. RESISTOR CH 1/4W 5. 6	2	
R6607	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R6611-13	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	3	
R6614	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R6615-17	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	3	
R6618	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
S6501	VSP1054	DETECTOR SWITCH	1	
S6502	VSP1055	DETECTOR SWITCH	1	
S6503	VSP1054	DETECTOR SWITCH	1	
S6504	VSS0512	DIP SWITCH	1	
VR2701, 02	EVMECSA00B12	V. RESISTOR 100	2	
VR6501	EVMECSA00B24	V. RESISTOR 20K	1	
VR6502	EVMECSA00B54	V. RESISTOR 50K	1	
		MISCELLANEOUS		
	VWJ26HW080MM	FLAT CARD CABLE	1	
	VWJ32HW080MM	FLAT CARD CABLE	1	
■	VEP07977A	TIMER C. B. A.		(RTL)
C7501	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C7502	ECEA1HKS100	E. CAPACITOR 50V 10U	1	
C7508, 09	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	2	
C7510	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1	
C7512	ECEA1HKS2R2	E. CAPACITOR 50V 2. 2U	1	
C7513, 14	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C7515	ECEA0JKS101	E. CAPACITOR 6. 3V 100U	1	
C7516, 17	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	2	
C7518, 19	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C7520, 21	ECUM1E473ZFN	C. CAPACITOR CH 25V 0. 047U	2	
C7522	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C7523	ECEA0JKS220	E. CAPACITOR 6. 3V 22U	1	
C7524	ECUX1H223KBN	C. CAPACITOR CH 50V 0. 022U	1	
C7525, 26	ECEA1EKS4R7	E. CAPACITOR 25V 4. 7U	2	
C7527	ECEA1CKS100	E. CAPACITOR 16V 10U	1	
C7528	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
D7501	MA4220-L	DIODE	1	
D7502	MA165VT	DIODE	1	
D7503-08	LN28RCPPU	DIODE	6	
D7509, 10	LN31GCPHLMU	LED	2	
D7511, 12	LN376GCPXUY	LED (GREEN)	2	
D7513, 14	LN48YCPL	DIODE	2	
D7515, 16	LN28RCPPU	DIODE	2	
D7517	MA165VT	DIODE	1	
D7518	MA4056-H	DIODE	1	
DP7501	VSL0512	DISPLAY TUBE	1	
IC7501	M35500AFP	IC	1	
IC7502	S80743AL	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC7503	M66010GP	IC	1	
IC7504	BA6810F	IC	1	
IC7505	RN5RZ38BA	IC	1	
K7504	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
L7501	VLQ0599J220	COIL 22UH	1	
P7501	VJS3537B017G	CONNECTOR (FEMALE) 17P	1	
P7502	VJS3537B019G	CONNECTOR (FEMALE) 19P	1	
P7503	VJP1231T	CONNECTOR (MALE) 4P	1	
P7504	VJS2183	CONNECTOR (FEMALE) 13P	1	
QR7501-16	MUN2112	TRANSISTOR-RESISTOR	16	
QR7517-19	MUN2111	TRANSISTOR-RESISTOR	3	
QR7520-23	UN211F	TRANSISTOR-RESISTOR	4	
R7501, 02	ERDS2T0	C. RESISTOR 1/4W 0	2	
R7503, 04	ERDS2TJ132	C. RESISTOR 1/4W 1. 3K	2	
R7505	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	1	
R7506	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R7507	ERJ6GEYG104	M. RESISTOR CH 1/10W 100K	1	
R7510	ERJ6GEYG432	M. RESISTOR CH 1/10W 4. 3K	1	
R7511-16	ERJ6GEYG303	M. RESISTOR CH 1/10W 30K	6	
R7520-24	ERJ6GEYG221	M. RESISTOR CH 1/10W 220	5	
R7526	ERJ6GEYG221	M. RESISTOR CH 1/10W 220	1	
R7528	ERJ6GEYG221	M. RESISTOR CH 1/10W 220	1	
R7539-41	ERJ6GEYG221	M. RESISTOR CH 1/10W 220	3	
R7542	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R7543-46	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	4	
R7555-62	ERJ6GEYG221	M. RESISTOR CH 1/10W 220	8	
R7563	ERJ6GEYG272	M. RESISTOR CH 1/10W 2. 7K	1	
R7564, 65	ERJ6GEYF473	M. RESISTOR CH 1/10W 47K	2	
R7566	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
R7567	ERJ6GEYG223	M. RESISTOR CH 1/10W 22K	1	
R7569-72	ERJ6GEYG221	M. RESISTOR CH 1/10W 220	4	
R7573	ERJ6GEYG103	M. RESISTOR CH 1/10W 10K	1	
R7574	ERJ6GEYG102	M. RESISTOR CH 1/10W 1K	1	
RX7501, 02	EXBF6E104J	RESISTOR-RESISTOR	2	
RX7503	EXBF8E104J	RESISTOR-RESISTOR	1	
S7501	VSP1053	DOOR SWITCH	1	
VR4004	EVNCYAA03B53	V. RESISTOR 5K	1	
ZB7501	VJF1331	FIP HOLDER	1	
ZB7503-08	VMD0504	LED HOLDER	6	
ZB7509, 10	VMX1932	LED SPACER	2	
ZB7511-16	VMD0504	LED HOLDER	6	
		MISCELLANEOUS		
	VEE0C27	WIRE CABLE	1	P7601 - P7503
■	VEP04695B	FRONT (L) C. B. A.		(RTL)
C4851	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4852, 53	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	2	
C4854, 55	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C4856	ECEA0JKA470	E. CAPACITOR 6. 3V 47U	1	
C4857	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
D4851, 52	MA165VT	DIODE	2	
IR4851	RPM6937-V11	IC	1	
JK4851	VEJ1801	JACK BOARD	1	
K4851	VWJ0119	JUMPER WIRE	1	
LB4851, 52	VLP0145	COIL	2	
P4851	VJS3537B022G	CONNECTOR (FEMALE) 22P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4851-53	ERJ6GEYG750	M. RESISTOR CH 1/10W 75	3	
R4854, 55	ERJ6GEYG101	M. RESISTOR CH 1/10W 100	2	
R4856	ERDS2TJ470	C. RESISTOR 1/4W 47	1	
R4857	ERJ6GEYF473	M. RESISTOR CH 1/10W 47K	1	
R4858	ERJ6GEYG332	M. RESISTOR CH 1/10W 3. 3K	1	
S4851	EVQ11407K	SWITCH	1	
S4852	ESD170306	SLIDE SWITCH	1	
S4853	VSR0221	ROTARY SWITCH	1	
ZB4851	VMD2247	IR RECEIVER HOLDER	1	
ZB4852	VGU7925	CHANGEOVER KNOB	1	
ZB4853	VGU7923	MIC KNOB	1	
ZB4854	VGF0740	VC SHEET	1	
■	VEP04696B	FRONT (R) C. B. A.		(RTL)
C4801, 02	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	2	
C4803, 04	ECUX1H223KBN	C. CAPACITOR CH 50V 0. 022U	2	
C4805	ECEA1CKA330	E. CAPACITOR 16V 33U	1	
C4806	ECEA1EKS3R3	E. CAPACITOR 25V 3. 3U	1	
C4807	ECUM1H472KBN	C. CAPACITOR CH 50V 4700P	1	
C4808	ECEA1AKA330	E. CAPACITOR 10V 33U	1	
C4809-11	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	3	
C4812	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C4813	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4814, 15	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	2	
C4816	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
D4801	LN476YCPX	LED	1	
IC4801	VCR0172	IC	1	
JA1	VEE0E94	EARTH WIRE	1	
JK4801	VJJ0264	HEADPHONE JACK	1	
JK4802	VJJ0263	MIC JACK	1	
L4801, 02	VLQ0599J221	COIL 220UH	2	
L4803, 04	VLQ0599J471	COIL 470UH	2	
LB4801	VLP0145	COIL	1	
P4801	VJS3537B020G	CONNECTOR (FEMALE) 20P	1	
QR4801	UN211F	TRANSISTOR-RESISTOR	1	
R4801	ERJ6GEYF472	M. RESISTOR CH 1/10W 4. 7K	1	
R4802	ERJ6GEYG682	M. RESISTOR CH 1/10W 6. 8K	1	
R4803, 04	ERJ6GEYG432	M. RESISTOR CH 1/10W 4. 3K	2	
R4805	ERJ6GEYG221	M. RESISTOR CH 1/10W 220	1	
R4806	ERJ6RBD471	M. RESISTOR CH 1/10W 470	1	
R4807	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R4808	ERJ6RBD162	M. RESISTOR CH 1/10W 1. 6K	1	
R4809, 10	ERJ6RBD101	M. RESISTOR CH 1/10W 100	2	
R4811	ERJ6RBD162	M. RESISTOR CH 1/10W 1. 6K	1	
R4812	ERJ6RBD471	M. RESISTOR CH 1/10W 470	1	
R4813	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R4814	ERJ6RBD162	M. RESISTOR CH 1/10W 1. 6K	1	
R4815	ERJ6RBD471	M. RESISTOR CH 1/10W 470	1	
R4816	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R4817	ERJ6RBD101	M. RESISTOR CH 1/10W 100	1	
S4801-06	EVQ11407K	SWITCH	6	
VR4801	EVJYM0F15C23	POTENTIOMETER .	1	
VR4802	EWANYJX1054J	V. RESISTOR	1	
VR4803	EVJ021F1554J	POTENTIOMETER	1	
ZB4801	VGU7922	VOLUME KNOB	1	
ZB4802, 03	VGU7924	REC LEVEL KNOB	2	
ZB4804	VGU8019	MIC KNOB	1	
ZB4805	VMD2326	REFLECTOR	1	
ZB4806	VKM3673	REC VOL PLATE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
ZB4807	VGF0208	REC VR SHEET	1	
ZB4808	VGF0740	VC SHEET	1	
■	VEP07966A	MODULAR C. B. A.		(RTL)
JK7601	VJJ0587	MODULAR JACK (4P)	1	
P7601	VJP1231T	CONNECTOR (MALE) 4P	1	
		MISCELLANEOUS		
	VMX1021	LOCKING SPACER	1	
■	VEP07965A	FRONT LED C. B. A.		(RTL)
D7751	LN01301C-LF2	LED (GREEN)	1	
D7752, 53	LN01801C-LF2	LED	2	
D7754	LN01301C-LF2	LED (GREEN)	1	
P7751	VJP1244T	CONNECTOR (MALE) 4P	1	
P7752	VJS3537B009G	CONNECTOR (FEMALE) 9P	1	
■	VEP07968B	IR C. B. A.		(RTL)
C7701, 02	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	2	
D7701, 02	MA4056-H	DIODE	2	
LB7701	VLP0196	CHIP INDUCTOR	1	
P7701	VJR1044	CONNECTOR	1	
		MISCELLANEOUS		
	VEE0C28	WIRE CABLE	1	IR - P7751
	VEE0E95	EARTH WIRE	1	
■	VEP03E18A	5P JACK C. B. A.		(RTL)
JK3781	VJJ0567	EDIT-E JACK (5P)	1	
P3781	VJP1244T	CONNECTOR (MALE) 4P	1	
■	VEP07967A	DV JACK C. B. A.		(RTL)
JK7651	VJJ0568	DV TERMINAL	1	
P7651	VJP1246T	CONNECTOR (MALE) 6P	1	
⚠ ■	VEP01814A	POWER SUPPLY C. B. A.		(RTL)
⚠ C1101-03	ECKMWS102MEF	C. CAPACITOR 1000P	3	
C1104	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
⚠ C1105, 06	ECQU2A154MVA	P. CAPACITOR 250V 0. 15U	2	
C1107	ECEC2GG121HZ	E. CAPACITOR 400V 120U	1	
C1108	ECCZ3A121KGE	C. CAPACITOR 1KV 120	1	
C1109	ECKD2H103PU	C. CAPACITOR 500V 0. 01U	1	
C1110	ECA0GXLV331	E. CAPACITOR 4V 330U	1	
C1111	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C1112	ECQB1H822JF	P. CAPACITOR 50V 8200P	1	
C1113	ECQE6104KF	P. CAPACITOR 630V 0. 1U	1	
C1114	ECA1VXLV470	E. CAPACITOR 35V 47U	1	
C1116	EEUFA1A332L	E. CAPACITOR 10V 3300U	1	
C1117	EEUFA1A102B	E. CAPACITOR 10V 1000U	1	
C1118	ECQV1H104JM	P. CAPACITOR 50V 0. 1U	1	
C1121	EEUFA1E222L	E. CAPACITOR 25V 2200U	1	
C1122	EEUFA1E102B	E. CAPACITOR 25V 1000U	1	
C1123	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1124	EEUFA1A332E	E. CAPACITOR 10V 3300U	1	
C1125	EEUFA1A102B	E. CAPACITOR 10V 1000U	1	
C1126	ECKD2H101KB	C. CAPACITOR 500V 100P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1127	EEUFA1H820	E. CAPACITOR 50V 82U	1	
C1128	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1129	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1130	EEUFA1V151B	E. CAPACITOR 35V 150U	1	
C1131	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1132	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1133	EEUFA0J561B	E. CAPACITOR 6. 3V 560U	1	
C1134, 35	ECQB1H103JF	P. CAPACITOR 50V 0. 01U	2	
D1102	S1WBA60S	DIODE	1	
D1103	AP01C	DIODE	1	
D1104	MA185	DIODE	1	
D1105	MA700	DIODE	1	
D1106	MA4200H	DIODE	1	
D1107	1SS254	DIODE	1	
D1108, 09	ERA15-08	DIODE	2	
D1110	RD100E	ZENER DIODE	1	
D1121	RL4ZP	DIODE	1	
D1122	F5KQ60	DIODE	1	
D1123, 24	ERA22-04	DIODE	2	
D1125	11EQS04	DIODE	1	
D1126	F5KQ40	DIODE	1	
D1130	MA7300B	DIODE	1	
⚠ F1101	XBA2C16TH15	FUSE	1	
IC1101	STRM6559LF	IC	1	
IC1102	HA17431PA	IC	1	
⚠ IP1101	VSF0015A10	IC PROTECTOR	1	
⚠ L1101, 02	ELF18D221F	LINE FILTER	2	
L1107	VLQ0655K220	COIL 22UH	1	
L1121, 22	VLQ0655K220	COIL 22UH	2	
L1123, 24	ELESE101KA	INDUCTOR 100UH	2	
LB1103, 04	VLP0083	COIL	2	
LB1105	VLP0085	COIL	1	
⚠ P1101	VJS3306	AC INLET	1	
P1102	VJP1239T	CONNECTOR (MALE) 12P	1	
⚠ Q1101	PC123FY2	PHOTO COUPLER	1	
R1101	ERC12AGM334	S. RESISTOR 1/2W 330K	1	
R1102	ERG1SJ393	M. RESISTOR 1W 39K	1	
R1105	ERDS1TJ395	C. RESISTOR 1/2W 3. 9M	1	
R1106	ERDS1TJ475	C. RESISTOR 1/2W 4. 7M	1	
R1107	ERDS2FJ124	C. RESISTOR 1/4W 120K	1	
R1108	ERDS2FJ101	C. RESISTOR 1/4W 100	1	
R1109	ERDS2FJ152	C. RESISTOR 1/4W 1. 5K	1	
R1110	ERDS2FJ103	C. RESISTOR 1/4W 10K	1	
R1111	ERDS2FJ331	C. RESISTOR 1/4W 330	1	
R1112	ERDS2FJ471	C. RESISTOR 1/4W 470	1	
R1113	ERX1SJR82	M. RESISTOR 1W 0. 82	1	
R1114	ERDS2FJ222	C. RESISTOR 1/4W 2. 2K	1	
R1115	ERDS2FJ2R7	C. RESISTOR 1/4W 2. 7	1	
R1116	EROS2CKG2701	M. RESISTOR 1/4W 2. 7K	1	
R1117	EROS2CKG6201	M. RESISTOR 1/4W 6. 2K	1	
R1118	ERDS2TJ272	C. RESISTOR 1/4W 2. 7K	1	
R1119	EROS2CKG2701	M. RESISTOR 1/4W 2. 7K	1	
R1121	ERDS2TJ271	C. RESISTOR 1/4W 270	1	
R1122	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
⚠ T1101	VLT0915	SWITCHING TRANSFORMER	1	
ZA1101, 02	EYF52BC	FUSE HOLDER	2	
ZA1103	VSC4205	SWITCH SHIELD COVER	1	
ZA1104, 05	VSC3434	HEAT SINK	2	
ZA1107	VSC4259	HEAT SINK	1	
ZA1108	VMP4717	AC PLATE	1	
ZA1109	VHD0418	SCREW	1	
ZA1110, 11	XTN3+8G	SCREW	2	
ZA1112	XTN3+10G	SCREW	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
⚠ ZB1101, 02	VMZ2212	CAPACITOR COVER	2	
⚠ ZB1104	VMZ2812	BARRIER	1	
■	UR57VPB623	EDITING CONTROL C. B. A.		(RTL)
C1	ECEA0JKA101	E. CAPACITOR 6. 3V 100U	1	
C2	EZJS2VB223Z	CAPACITOR	1	
C4	ECUV1E104ZFN	C. CAPACITOR CH 16V 0. 1U	1	
C5, C6	ECUV1H103ZFN	C. CAPACITOR CH 50V 0. 01U	2	
C7, C8	ECUV1H101KCN	C. CAPACITOR CH 50V 100P	2	
C10	ECUV1E104ZFN	C. CAPACITOR CH 16V 0. 1U	1	
C11	ECUV1H221KCG	C. CAPACITOR CH 50V 220P	1	
C12, 13	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	2	
C14	EZJS2VB223Z	CAPACITOR	1	
C15	ECUV1E104ZFN	C. CAPACITOR CH 16V 0. 1U	1	
D1, D2	1SS294	DIODE	2	
D4-D6	MA152	DIODE	3	
D9	1SS294	DIODE	1	
IC1	M34510M4194T	IC	1	
IC2	RH5VL20AA	IC	1	
LED1, D2	SE1003E	LED	2	
LED3	L1261CALU	LED	1	
Q1	2SB1188	TRANSISTOR	1	
Q2	MSD601R	TRANSISTOR	1	
Q3	MSB709R	TRANSISTOR	1	
Q4, Q5	MSD601R	TRANSISTOR	2	
R1, R2	ERJ8GEYJ1R8	M. RESISTOR CH 1/8W 1. 8	2	
R3, R4	ERJ6GEYJ471	M. RESISTOR CH 1/10W 470	2	
R5	ERJ6GEYJ470	M. RESISTOR CH 1/10W 47	1	
R6	ERJ6GEYJ271	M. RESISTOR CH 1/10W 270	1	
R8-14	ERJ6GEYJ104	M. RESISTOR CH 1/10W 100K	7	
R15	ERJ6GEYJ222	M. RESISTOR CH 1/10W 2. 2K	1	
R19, 20	ERJ6GEYJ104	M. RESISTOR CH 1/10W 100K	2	
R22	ERJ6GEYJ470	M. RESISTOR CH 1/10W 47	1	
R23, 24	ERJ6GEYJ472	M. RESISTOR CH 1/10W 4. 7K	2	
R25	ERJ6GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R26-28	ERJ6GEYJ472	M. RESISTOR CH 1/10W 4. 7K	3	
R29	ERJ6GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R31, 32	ERJ6GEYJ271	M. RESISTOR CH 1/10W 270	2	
R33-36	ERJ6GEYJ682	M. RESISTOR CH 1/10W 6. 8K	4	
R37	ERJ6GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R38	ERJ6GEYJ472	M. RESISTOR CH 1/10W 4. 7K	1	
R39	ERJ6GEYJ104	M. RESISTOR CH 1/10W 100K	1	
SW1	ESD10606	SLIDE SWITCH	1	
VR1	EVQWM2001	ENCODER	1	
X1	CSB990J	OSCILLATOR	1	
		MISCELLANEOUS		
	UR57TD627	(-) BATTERY TERMINAL	1	
	UR57TD626	(+) BATTERY TERMINAL	1	
	SS6444FLS	MODULAR JACK	1	
	VJR1005	OUTSIDE TERMINAL (4 PIN)	1	
	UR57JP639	JUMPER WIRE (4 PIN)	1	
	UR57JP637A	JUMPER WIRE (7 PIN)	1	
	UR57JP638A	JUMPER WIRE (12 PIN)	1	

INTERNAL REFERENCE CODES

NOTE: This chart is only for internal reference.
Do not order any parts according to these codes.

P.C.B.	FILM CODE
MAIN	HOMK00-06C40
DIGITAL	HOMK00-03E55
ANALOG	HOMK00-03E27
INPUT/OUTPUT	HOMK00-03E28
AUDIO	HOMK02-03E29
REAR JACK	HOMK00-03E29
MOTOR DRIVE	HOMK00-06C89
NICAM DECODER PACK	HOMK00-07973
TV DEMODULATOR PACK	HOMK00-07801
HEAD AMP	HOMK00-05351
MECHANISM DRIVE	HOMK02-02557
TIMER	HOMK00-07977
FRONT (L)	HOMK00-04695
FRONT (R)	HOMK00-04696
MODULAR	HOMK00-07966
FRONT LED	HOMK00-07965
IR	HOMK00-07968
5P JACK	HOMK00-03E18
DV JACK	HOMK00-07967
POWER SUPPLY	HOMK00-01814

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